

In this issue...

New Authority Members

Appointees bring decades of experience and dedication to Authority's Board. **Page 3**

CPI and Contracts – Factoring in the Cost of Inflation

How does the cost of fuel affect CPI? How does CPI affect contract price? And how do both affect the kinds of budget decisions you have to make every day? **Page 4**

Maryland Doubles Waste Diversion Rate in Past Decade

Between 1993 and 2004, Marylanders tripled the tonnage of recycled material and doubled the recycling rate to almost 40%. Here's how they did it. **Page 5**

Landfill Methane Conference Comes to Baltimore

EPA's 8th Annual Landfill Methane Outreach Program Conference highlighted the latest developments in landfill gas energy projects, with sessions on green power and renewable portfolio standards, international activities, state initiatives and much more. **Page 5**

The Lazy Person's Guide to a Greener, Healthier Lawn

Grass recycling isn't just easier than all that raking and bagging – it's actually better for your lawn and for the environment. **Page 6**

Harford County, U.S. Army and Authority Break Ground for Retrofit Project at Waste-to-Energy Facility

In December, Harford County Government officials along with representatives from the Northeast Maryland Waste Disposal Authority and Aberdeen Proving Ground participated in a groundbreaking ceremony for an Air Pollution Control Retrofit project at the Harford Waste-to-Energy Facility in Joppa. The upgrades are needed in order to comply with stricter Federal and State emission guidelines that will be in force in November of 2005. To meet the new standards, air pollution control equipment must be installed, including a substantially improved acid gas scrubbing system that removes acid gases such as HCL and SO₂; an activated carbon injection system to control heavy metals such as mercury; a new bag house particulate



From left: Tim McNamara, APG; Mike Solms, Stellar Power and Utilities; Harford County Executive James Harkins; Robin Davidov, Northeast Authority

removal system to remove dust particles from the air; and the associated controls and ancillary equipment needed to run the new equipment.

continued on page 2

Mark Your Calendars for MRC's 2005 Conference and Exposition

SWANA's Mid-Atlantic Chapter will join the Maryland Recyclers Coalition for the first joint MRC-SWANA conference, June 8 & 9, at the Community College of Baltimore

County, Catonsville Campus. More details to follow. Visit www.marylandrecyclers.org for conference updates.

WasteWatch Notice

Save paper and postage when you read WasteWatch online at our website. You'll receive an electronic notice (email) when a new WasteWatch is posted, with a link to our website. If you would prefer to read your WasteWatch online, please contact us at: phone: (410) 333-2730 / authority@nmwda.org / Fax: (410) 333-2721.

Harford County Retrofit Project

continued from page 1

Harford County has invested over \$10 million in this advanced air emissions equipment. Retrofit construction is expected to take less than one year, with equipment startup and testing to begin in late summer 2005. This will allow us time to ensure optimum performance well ahead of the compliance deadline.

The facility processes most of the solid waste generated in the county. The resulting steam is then sold as an energy source to the U.S. Army at

Edgewood Area of the Aberdeen Proving Ground. Since it opened 16 years ago, the facility has processed 1-1/2 million tons of solid waste into energy and produced 8 billion pounds of steam - equivalent to the energy produced by 960,000 barrels of oil.

The Northeast Maryland Waste Disposal Authority has contracted with Stellar Power and Utilities for this important upgrade, and will be responsible for construction oversight and ongoing operations at the facility.

County Executive Lauds County-Army Partnership

(The following are excerpts of Harford County Executive James Harkins' remarks at December's groundbreaking ceremony.)

Today we come together to celebrate our past achievements and to open a new chapter on environmentally sound waste management. Sixteen years ago, Harford County opened this modern waste-to-energy facility to process the solid waste generated by homes, businesses and institutions in Harford County and generate steam for the Aberdeen Proving Ground's Edgewood Area. This was a unique partnership between the County and the Army, working together to safely dispose of solid waste and at the same time reduce the Army's dependence on oil. I don't have to tell you that given today's high price for oil, the cost savings to APG is substantial, and helps maintain the viability of this base. The steam energy also meets the Federal and State goals for replacing fossil fuels with "clean and renewable energy."

Since opening, this waste-to-energy facility has processed one-and-a-half-million tons of solid waste into energy, and produced 6 billion pounds of steam, which is equivalent to 960,000 barrels of oil. Harford County has also achieved a regional goal of minimizing landfilling of waste, which means that less of the County's valuable land will be taken out of productive use in the future.

Harford County is proud to boast of one of the highest recycling rates in the State of Maryland and in the United States.

I attribute this success to our comprehensive recycling system, of which this facility plays an important role. So far this calendar year, 191 tons of metals have been recovered from the ash residue and recycled. Homeowners and businesses complement this impressive achievement by recycling at home, school and work.

Unlike conventional coal and oil fired energy plants, waste to energy facilities must add new air pollution control technology as it becomes available and proven. Harford County is meeting its regulatory obligations by installing new equipment to further reduce the small amount of air emissions. I'll describe those improvements in a minute.

As important, Harford County is meeting a social commitment to its residents and businesses to improve the quality of the air we breathe and the water quality of the Chesapeake Bay we so much enjoy. Harford County has invested over 10 million dollars in advanced air emissions equipment, which includes:

1. A "scrubber" which sprays slurry of lime into the hot exhaust. The lime neutralizes acid gases, just as a gardener uses lime to neutralize acidic soil. Scrubbing also improves the capture of mercury in the exhaust.



Foundations are being poured to support three new ID fans that will help pull the flue gas through the new emission control equipment.



Completed foundation for the lime silo and lime slurry preparation equipment. The lime slurry will be injected into the acid gas scrubber to neutralize the acid gases in the flue gas.



Nearly completed foundation for the acid gas scrubber.

continued on page 3

New Authority Members

Edward C. Adams, Jr. P.E.

Ed Adams, who served on the Authority's board in 1999 and 2000 as Harford County's Member Representative, was recently reappointed to represent Baltimore County.

Mr. Adams was appointed Director of Public Works in Baltimore County in July 2000, following nearly two decades of engineering, management and administrative experience in central Maryland. A graduate of the Johns Hopkins University School of Engineering and a member of the *Tau Beta Pi* Honor Society, Mr. Adams' career has taken him from the construction site to the front office and has included a broad range of responsibilities in both the public and private sectors.

Now, as Director of Baltimore County's Department of Public Works, Ed Adams runs an organization of 1,100 employees providing public works infrastructure to a population of more than 700,000. We look forward to working with him again.

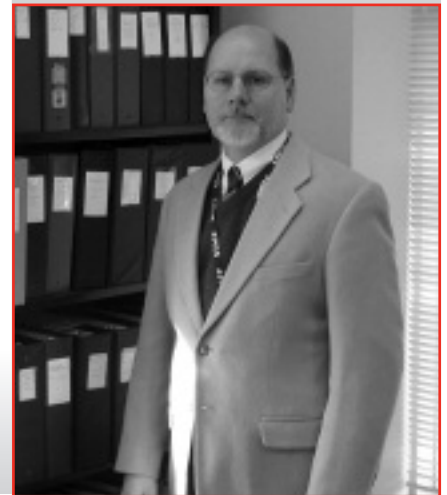
Michael G. Marschner

Frederick County Representative Michael G. Marschner comes to the Authority's Board with more than 26 years of experience in water and wastewater utility and solid waste facility operation and management, and has served Frederick County and its citizens for more than 21 years through several supervisory and management positions in the County's Division of Public Works, Bureau of Water and Sewer.

In March 2000 the Frederick County Board of County Commissioners, after reorganizing the County's Division of Public Works, appointed Mr. Marschner to the position of Director of the Division of Utilities and Solid Waste Management, consolidating the County's water supply and waste management enterprises under a single County agency.



Edward C. Adams, Jr. P.E.



Michael G. Marschner

County Executive Lauds County-Army Partnership

continued from page 2

2. A "bag house" which works like a giant vacuum cleaner with hundreds of fabric filter bags that clean the air of soot, smoke and metals. This equipment is so efficient, it will remove 98% of all particles.

3. "Carbon Injection" systems blow charcoal into the exhaust gas to absorb mercury. Carbon injection also controls organic emissions such as dioxins.

I would like to acknowledge the following for being part of the past sixteen years of successful operation and I look forward to working with them for many years to come:

Jerry Wheeler, Public Works Director of Harford County and his staff, including Frank Henderson, Jerry Scanlan, Dan Pazdersky and Bob Ernst, Colonel John Wright, APG and his staff, including Mr. Harry Greveris and Mr. Gary Testerman, Jeff Poulton, of Environmental Resources Operations, Inc., our plant manager and his staff, Robin Davidov of Northeast Maryland Waste Disposal Authority and her staff, including Chris Skaggs, and representatives of Stellar Construction and Wheelabrator Air Pollution Control Systems who we wish a warm winter to build these impressive improvements.



Work continues after the mid-January snowfall on forming the piers that will support the ID fans.

Managing Inflation and Fuel Cost Adjustments in Waste Collection and Disposal Contracts

In a recent public webcast of fourth quarter 2004 financial results, Waste Management, Inc., the largest waste company in the United States, had some interesting information for investors that should be heeded by public clients.

Waste Management noted that the company recovered approximately \$50 million of \$70 million in fuel cost increases through fuel cost surcharges in 2004. The company would like to increase its recovery rate. In order to do that, the company stated that it will add a fuel cost surcharge to all new contracts, and that the fuel cost surcharge will be separate and distinct from the typical inflation adjustment.

Fuel cost adjustments are also common in contracts to haul other commodities and waste products, including sewage sludge. Synagro is another company that typically includes fuel cost indexes

in its contracts to transport biosolids long distances for application to farm land.

Unlike inflation adjustments, fuel cost adjustments are more volatile and have to be addressed differently in a contract.

Let's look at the recent history of the most popular inflation adjustment, the Consumer Price Index (CPI) and the Maryland Fuel Cost Index. The chart below shows that CPI was more volatile in the years between 1983 and 1991. However, since 2000, the increase in CPI has been less than 3.5% each year. Compare this to the change in the Maryland Fuel Cost Index for the same period, which varied from a high of 54% in 2000 to a low of minus 9% in 2001.

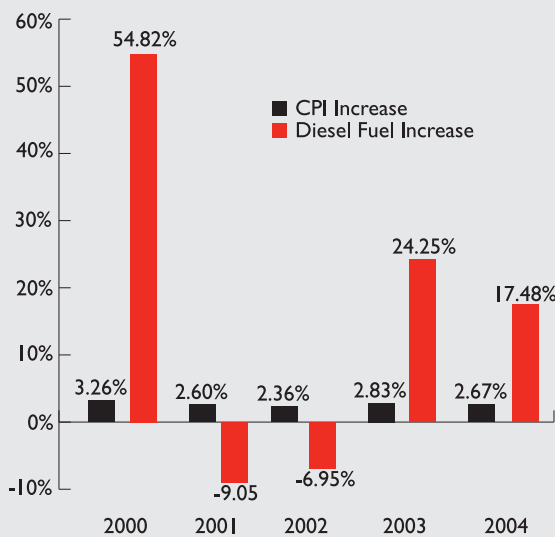
The chart also shows that CPI is always a positive number, higher in some years, lower in other years, so a contract price

which is subject to CPI will always increase from year to year. But look carefully at Fuel Cost. A contract signed in 2000 would presumably include the high fuel cost in that year. So when the first fuel cost adjustment is made in 2001, the contract price (or portion thereof) would actually decrease to reflect the much lower cost of fuel in the second year.

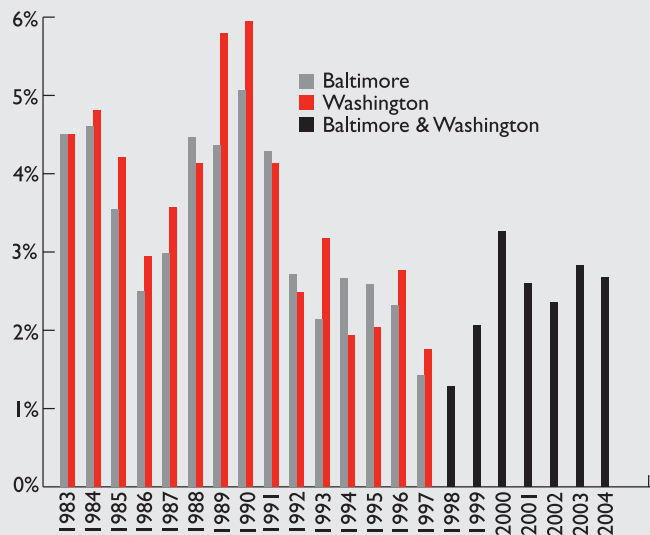
The CPI is a market basket of goods, including energy. One item in that basket is the cost of transportation. Typically an index is split into two parts to account for this. For example, an index can be stated as 50% CPI and 50% Fuel Cost Adjustment.



Comparison of Maryland Fuel Cost & CPI



Consumer Price Index Percent Increase



1993

Maryland Doubles Waste Diversion Rate in Past Decade

2004

As Marylanders celebrated America Recycles Day in November of last year, they were celebrating several true recycling milestones. Between 1993 and 2004, Maryland's consumers, businesses and government more than doubled the state's Waste Diversion Rate, improving from a lackluster 19 percent (composed entirely of recycling) to over 39 percent, while at the same time almost tripling the tonnage of recycled materials from 900,000 tons to approximately 2.6 million tons. Thanks to these improvements, Maryland is closing in on its voluntary 40 percent Waste Diversion goal a year ahead of schedule.

"This demonstrates Marylanders' dedication to the environment," said MDE Secretary Kendl P. Philbrick. "It's an achievement that everyone can be proud of: nearly 2.6 million tons of solid waste kept out of landfills thanks to recycling activities in 2003. By recycling materials rather than throwing them away, everyone is able to help save energy, conserve our natural resources, and create a safer, cleaner environment for future generations."

An important part of Maryland's stellar performance has been the success of our source reduction efforts, which account for up to 5 percent of our 40 percent Waste Diversion Rate goal. The

"This demonstrates Marylanders' dedication to the environment"

— Secretary Kendl Philbrick



source reduction credit was created by Maryland's General Assembly in 2002 to encourage counties to foster good recycling practices and waste reduction at

the source. Maryland is one of only three states that give credit for source reduction activities.

"eCycling" Gaining in Popularity

In an effort to reduce the amount of toxic waste going into landfills, Maryland began "eCycling" computers, televisions and other electronic components in 2001, and has collected more than 5.8 million tons of this material at 55 collection events and five permanent collection facilities.

On April 27, 2004, Governor Robert L. Ehrlich, Jr. signed into law House Bill 109 – Electronic Waste Collection Systems, which requires MDE to convene a workgroup to study the funding, establishment and implementation, by January 2006, of an electronic waste collection system in the state. The popularity of eCycling continues to rise as citizens become more aware of the need to reduce the amount of toxic material in the waste stream and save landfill space.

••• BALTIMORE HOSTS *EPA's 8th Annual* ••• **LANDFILL METHANE OUTREACH PROGRAM CONFERENCE**

On January 10th and 11th, 2005, the EPA's Landfill Methane Outreach Program (LMOP) held its 8th Annual Conference and Project Expo at the Marriott Waterfront Hotel in Baltimore. This was a national conference that brought in attendees from all over the United States and Canada.

Conference presentations highlighted the latest developments in landfill gas-to-energy projects, with sessions on green power and renewable portfolio standards, international activities,

state initiatives to advance landfill gas-to-energy projects, financing and economics, new technologies, case studies and utility involvement. Speakers included many leading experts in the LFG arena, who provided important information for anyone considering the development of a project.

In conjunction with the conference, LMOP hosted a Project Expo to exhibit information about a number of landfills that have strong potential for development as gas-to-energy projects, including landfills

owned by Norcal Waste Systems, Inc. and Republic Services. Also featured at the Expo were numerous exhibits of industry consultants, vendors, etc.

Many of the presentations given at the conference can be found online at www.epa.gov/lmop. (Click on "Workshops/Conferences," look for "8th Annual LMOP Conference" and click on "agenda.") Please contact Laura Thomson at 410-333-2730 if you have any additional information requests.

Mulch Ado About Grass Recycling

If you've been raking and bagging your grass clippings and putting them out for curbside pickup, you're not only doing extra work (that you aren't paid for in the first place), you're throwing away a great source of moisture and nutrients that could enhance the health of your lawn and generating non-recyclable material in the shape of those big green garbage bags – which, in turn, require petroleum and energy to manufacture.

Bad for your back, bad for your lawn, bad for the environment.

This spring, why not try grass-recycling? It's as simple as borrowing a neighbor's mulching mower, or just putting mulching blades on your old machine. You'll find that the clippings just melt into your lawn, adding moisture

(good) and organic nutrients (better), while reducing the need for watering (best). Got leaves? Just pile them up, run over them, spread the results over your flower and vegetable beds for a blanket that will help protect plants over the winter. Do your spring planting in your newly mulched garden for bigger, healthier plants that require a fraction of the weeding of an unmulched plot. (It's called "Lasagna Gardening," believe it or not.) Limbs and twigs should be tied into bundles and left at the curb. If you put them into plastic bags, they are more difficult to recycle.

So remember this mantra while waiting patiently for warmer weather and thumbing through those seed catalogs: "Mulch it and forget about it."



This spring, why not try grass-recycling? It's as simple as borrowing a neighbor's mulching mower, or just putting mulching blades on your old machine.



WASTEWATCH

Tower II – Suite 402, 100 S. Charles Street
Baltimore, Maryland 21201-2705
(410) 333-2730 / FAX: (410) 333-2721
E-mail: authority@nmwda.org
Website: www.nmwda.org

Wastewatch is published quarterly by the Northeast Maryland Waste Disposal Authority, an independent agency of the State of Maryland governed by its Member jurisdictions – Anne Arundel County, Baltimore City, Baltimore County, Carroll County, Frederick County, Harford County, Howard County and Montgomery County.

EXECUTIVE DIRECTOR..... Robin B. Davidov

- MEMBERS**
- James M. Irvin
Chairman
Howard County
 - George L. Winfield
Treasurer
Baltimore City
 - Ronald E. Bowen
Anne Arundel County
 - Edward C. Adams, Jr.
Baltimore County
 - Franklin G. Schaeffer
Carroll County
 - Michael G. Marschner
Frederick County
 - Jerald R. Wheeler
Harford County
 - Arthur G. Balmer
Montgomery County
 - John S. Sparkman
Maryland Environmental Service