

Macon households remove 1,600 mercury thermometers

by David Gipson, Pollution Prevention Specialist

This January, the Medical Center of Central Georgia's non-profit Community Health Education and Career Center sponsored a thermometer swap in Macon's Colonial Mall. P²AD, with a grant from the U.S. Environmental Protection Agency (EPA), has assisted approximately 20 other non-profits, local governments, and schools by providing training and replacement non-mercury thermometers, but none have been as successful as Macon's.

Betty Simms, publications coordinator at MCCG said, "we had an outstanding response to our thermometer swap due to the fact that the media really jumped on this as a public service." Gayle Bina, community education manager, added that cold and flu season is the perfect time to have an event like this because people are using their thermometers.

The Macon Telegraph ran regular announcements about the event and Channel 13 WMAZ also picked up the story. Charles Krauss, health educator at the Community Health Education and Career Center, said that



With more thermometers to come, MCCG's Charles Krauss (left), Gayle Bina (right) and P²AD's David Gipson (center) stand with approximately 1,300 mercury thermometers.

See Macon collection page 6

Metcam reduces wastewater by 94% through P2 innovation

105% rate of return on investment in Phase I provides a model for the metal finishing industry

by Colin Kiefer, Pollution Prevention Engineer



**Georgia Metal
Finishing Initiative**
Pollution Prevention Assistance Division

Two years ago, Metcam, Inc., a metal fabrication and finishing business in Alpharetta, was searching for ways to increase profits and keep its wastewater costs under control. Because the company was not connected to a sewer line, it didn't have the ability to discharge non-hazardous wastewater to the City of Alpharetta for treatment. Metcam's only options for handling its wastewater were either expensive offsite treatment and disposal, or onsite evaporation of its nonhazardous wastewater. There had to be another option.

See Metcam page 3

inside

| | | | | | |
|-------------------------|---|-------------------------|---|-----------------------|----|
| Director's Column | 2 | Food Waste | 7 | Lockheed Martin | 9 |
| Rain Garden | 4 | Partnership Program ... | 8 | Calendar | 10 |

DIRECTOR'S COLUMN

by **G. Robert Kerr**

As I retire from state government, and leave my jobs as the director of the Pollution Prevention Assistance Division of DNR and as Georgia's designated negotiator in the water dispute with Alabama and Florida over water allocation in the Alabama, Coosa, and Tallapoosa Rivers Basin, and the Apalachicola, Chattahoochee and Flint Rivers Basins, I do so with mixed emotions.

I look forward with anticipation to new challenges and to having the time to do some of the things I have put off in the press of business. I look backward with great pride at what has been accomplished, but with a little sadness that I won't have a major hand in meeting the new opportunities that are in front of us.

My greatest source of pride is the people that staff P²AD. They are talented, skilled, and dedicated professionals, among the finest in

government at any level. Because of them, P²AD has become among the most respected technical assistance organizations in the country. When the legislature created P²AD in 1993, we began from scratch to build the expertise we have today. We first concentrated on manufacturing companies that used and/or created toxic substances, then expanded to all types of manufacturers and manufacturing processes. Gradually we added skill sets to meet the needs of commercial enterprises and institutions of all kinds, such as the hospitality industry, state parks and prison systems, hospitals, military bases, construction and demolition services, and the agriculture industry. P²AD is meeting its objectives of reducing contaminants in our environment, reducing use of raw materials, and improving the bottom line. Dollar savings that our staff have identified

for Georgia operations have far exceeded our

annual budget, providing quite an impressive return on the investment of tax dollars in our mission.

In addition, we have formed formal partnerships with the University of Georgia, Georgia Tech, Southface, and the military. Informal partnerships are numerous. We developed recognition programs to reward Georgia's environmental leaders, and are now upgrading them to make them more meaningful and relevant as vehicles for continual environmental improvement in our state.

I could go on about the current activities, and about future plans. But I will leave that reporting to my able successor, Bob Donaghue. Bob has been with me since the beginning, and has consistently demonstrated, integrity, vision, leadership and management skills. I am very proud that he is replacing me. Also, a minor reorganization has taken place: Stephanie Busch and Judy Adler now act as Program Managers for our commercial and manufacturing sectors, respectively. They report to Bob, and are responsible for day-to-day management in these sectors. I'm confident that this trio and their associates will continue to ably serve



See Director, page 5

from the **source**

A Publication of the Georgia Pollution Prevention Assistance Division

From the Source is a quarterly publication of the Pollution Prevention Assistance Division (P²AD) of the Georgia Department of Natural Resources (DNR). P²AD provides free, confidential, technical assistance in the areas of pollution prevention, resource conservation, waste reduction, by-product reuse, and recycling. Our clients include manufacturers, commercial businesses, institutions, military and government facilities, agricultural operations, consultants, and the citizens of Georgia.

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For more information about P²AD's services, contact the Division at (404) 651-5120, (800) 685-2443 (outside Atlanta), or via email at info@p2ad.org.

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Mary Beth Schwefel of Metcam, and P²AD's Colin Kiefer conduct a permeate flow rate visual check.

By joining forces with P²AD in the Georgia Metal Finishing Initiative (MFI), Metcam found that option through pollution prevention (P2).

The MFI is a unique industry-government partnership that is helping metal finishers around the state discover how P2 practices can help reduce their wastestreams and improve their bottom lines.

Through a U.S. Environmental Protection Agency (EPA) grant program, P²AD was able to provide matching funds to Metcam to support its P2 efforts. In return, Metcam is working with P²AD to accelerate implementation of P2 practices throughout the industry in Georgia by offering facility demonstrations and presenting the company's success at industry conferences and meetings.

Metcam specializes in precision metal fabrication, powder coating and light assembly. It received honorable mention at P²AD's 2002 Governor's Awards for eliminating nearly all hazardous paint waste by switching from solvent-based liquid painting to powder coating, and this initial P2 success inspired them to seek P2

solutions for their wastewater issues as well. Metcam and P²AD are now working together in a three-phase project that will allow the company to receive recognition through the new P²AD Partnership Program.

The three phases of the project are:

- Phase I - Alkaline Spray Cleaner & Rinse Bath Life Extension Study
- Phase II - Non-chrome Substitute Aluminum Coating Study
- Phase III - Implementation of an Environmental Management System

P²AD helped Metcam identify the full cost of the company's non-hazardous wastewater to help justify

Through participation in the MFI Pilot Project, Metcam reduced ...

- ✓ wastewater volume by 94%
- ✓ cleaner usage by 64%
- ✓ wastewater treatment costs by 78%

needed process improvements and learned that Metcam was spending \$33,500 to evaporate 80,600 gallons of non-hazardous wastewater from a five-stage iron phosphate washer. Increases in production meant rapid build-up of oil and solids in a critical rinse tank, which could negatively impact product quality. One solution called for increasing the frequency that the rinse tank was dumped, but this meant purchasing another evaporator at a cost of \$42,000 and increasing the full

wastewater costs to \$60,600 per year. Another option was to dump the rinse tank daily and send half of the wastewater to an offsite treatment and disposal facility, avoiding the evaporator purchase but increasing wastewater costs to \$70,600 per year. The best solution was to minimize the rinse wastewater at the source.

After considering three different P2 technologies that would provide source reduction, Metcam chose an ultrafiltration membrane system. By removing the oils and solids from the cleaner bath, the rinse would last much longer, and a portion could be returned to the cleaner as makeup.

The pilot project was a tremendous success with a 94% reduction in wastewater, a 64% reduction in cleaner usage, and a 78% reduction in wastewater treatment costs, while maintaining consistent product quality. The P2 practice selected proved effective in slowing the buildup of oil and solids in the rinse, allowing its life to be extended from two days to three months. It also rejuvenated a six-month-old spent cleaner bath, preventing this solution from being dumped as well. The project had a simple payback of eight months with a net savings of \$29,000 per year, an internal rate of return of 105%, and a net present value of just over \$300,000.

For more information on the MFI, contact Colin Kiefer at (404) 651-5128 or colin_kiefer@p2ad.org.

Rain gardens provide a creative solution for treating stormwater

by Dr. Rose Mary Seymour, Agricultural Pollution Prevention Program, University of Georgia

We're all familiar with traditional methods for treating stormwater runoff from paved surfaces—storm drains, combined sewers, retention ponds. While the effectiveness of these methods is debated, seldom are they considered features of our urban landscape that are pleasing to the eye. P²AD's Agricultural Pollution Prevention (AgP2) program, the Clean Water Campaign and the Georgia Cooperative Extension Service are working to change that urban landscape and protect our rivers and streams by promoting rain gardens as a new stormwater management tool.

Rain gardens are landscape features where the surface of the soil is shaped like a basin to capture stormwater, and is then planted with a variety of appropriate species of trees, shrubs, perennial herbaceous plants and/or ornamental grasses. A rain garden is designed to intercept some or all of the stormwater from a rainfall event, particularly the "first flush" of a storm. This first flush is considered the most contaminated stormwater during any storm (for Atlanta, this amounts to the first 1.2 inches that fall during a storm). In the Atlanta area, only about 15% of all rainfall events will exceed this amount, causing some runover of stormwater from the rain garden.

This winter, AgP2 program staff and Todd Hurt, county extension agent, held workshops for homeowners on how to construct rain gardens in their yards and

landscapes. Workshops (co-sponsored by the Clean Water Campaign) were held in Morrow, Sandy Springs, South Fulton, and Cobb, Gwinnett, DeKalb, and Cherokee counties, and were well attended. Participants were given an overview of stormwater issues including the importance of onsite capture and treatment and instructed on how to construct a rain garden. Two additional workshops are planned for March 22 in Conyers and March 31 in Alpharetta.

Not only is a rain garden functional, but with the right plants, it adds beauty to the landscape. Homeowners have many choices in creating the character of their rain gardens. They can create a butterfly garden in a bright sunny location with bright flowering perennials, or they might want their rain garden to be a more native area of the landscape filled with native plants.

Rain gardens are an exciting new idea in Georgia that allows homeowners to prevent pollution and contribute to sound stormwater management in their communities.



Workshop participants visit a new rain garden outside the Physical Plant at the University of Georgia.

[See Rain Gardens page 5](#)

Frequently Asked Questions: Rain Gardens

What should I consider when designing a rain garden?

Location, appropriate sizing and selection of plants that can survive in saturated soil as well as in drought conditions.

How do rain gardens work?

Stormwater may be channeled to the rain garden through swales or pipes or may flow into the rain garden as sheet flow along the uphill edge. The stormwater is retained in the rain garden and infiltrates into the soil. Rain gardens can be placed to capture runoff from impervious surfaces such as roofs, patios or driveways. Reducing the volume of stormwater leaving the home landscape can reduce the need and cost of downstream stormwater pollutant removal systems.

Why are rain gardens more effective than traditional treatment?

Traditionally, residential landscapes (typically planted in turfgrass) are graded to carry stormwater to storm drains quickly and directly (taking with it pollutants and trash), providing no treatment or removal of pollutants before the stormwater is dumped into local streams, rivers and lakes.

Rain gardens have been shown to hold 30% more runoff than graded turfgrass lawns. By allowing more stormwater to infiltrate and remain onsite, the groundwater and nearby streams are replenished. The soil, plants and mulch within rain gardens also utilize and treat pollutants through physical, chemical and biological processes.

Local student wins national radon poster contest

by Marci DeSart, Pollution Prevention Specialist



Mark Calvert's winning poster.

Georgia made an admirable showing in the 2003 National Radon Poster Contest, held Jan. 13 at the U.S. Environmental Protection Agency's (EPA) Washington, D.C. headquarters.

Marki Calvert, a sixth grader at Loganville Middle School, won first place in the computer generated category and was presented with a \$750 U.S. savings bond, plaque and 10 t-shirts emblazoned with her design by EPA Administrator Mike Leavitt. Included in the all-expense paid trip to Washington, D.C. and beaming proudly from the audience were Marki's parents, younger sister and Becky Chenhall, one of four regional radon educators in Georgia supported by P²AD's State Indoor Radon Grant (SIRG) from EPA.

In an effort to raise awareness and promote understanding about the dangers of radon gas, a statewide poster contest was held last fall. Students were charged with creating either a hand-drawn or computer generated poster.

The University of Georgia's (UGA) President Michael Adams honored first place winners Calvert, and Jeneka Avery of Monroe at a ceremony in Athens last December. The Georgia contest winners then went on to the national competition.

The statewide radon poster contest was sponsored by UGA's College of Family and Consumer Sciences (FACS) and funded by the U.S. Department of Agriculture-Cooperative State Research, Education & Extension Service, Division of Housing and the Environment. "Due to our successful partnership with P²AD's radon program, we were able to leverage additional funding to hold this poster contest for middle school students, a population not typically targeted with the radon message," said Dr. Jorge Atilas, assistant professor and extension

housing specialist with UGA. "There have been so many positive outcomes from this [contest], we will definitely pursue funding to carry out this event next year," he added.

The trip to Washington, DC was a first for Calvert, who learned about the poster contest at a 4-H meeting. The best parts of the experience, she said, were "The

awards ceremony and riding around and visiting the sights in a limo." "We went to the JFK memorial, the Museum of Natural History, Arlington

Cemetery, and I saw the changing of the guards. We went by the White House, the Capitol and the Pentagon—it was one of the best days of my life!"

For more information on the SIRG program, contact Marci DeSart at (404) 657-5204 or marci_desart@p2ad.org.

●●●●●●●●●●
● The 2004 P²AD
● Radon Grant
● Application
● is now
● available at
● www.p2ad.org.
● Applications
● are due
● April 26th.
●●●●●●●●●●

Rain Gardens, cont. from page 4

For more information, visit the Clean Water Campaign at www.cleanwatercampaign.com/what_can_i_do/raingardenworkshop.html. For details on the Conyers workshop, call (770) 785-5952 or email uge1247@uga.edu. For information on the Alpharetta workshop, call (678) 297-6200 or email tporter@alpharetta.ga.us.

Director, cont. from page 2

P²AD and its client partners after I pass the baton.

I sincerely wish that I could visit with each of you who have used one or more of our services and express my personal appreciation for the confidence you have shown in our work and the staff. All P²AD has to "sell" is its credibility, and you have helped us achieve that credibility, while becoming more efficient in your own right. I leave with the satisfaction that P²AD has made a significant contribution to the well being of the state, and that it is in good hands. If you have a desire to contact me, you can do so at kerdis@mindspring.com.

Vehicle maintenance P2 tips

Waste reduction for any fleet or garage operation

by John Allen, Pollution Prevention Engineer

When you think of vehicle repair, cleanliness and good environmental performance may not be the first things that pop into your mind. This does not have to be the case. There are several ways in which you can make your automotive repair shop a shining example of pollution prevention and waste reduction. Here are just a few suggestions:

P2 Tips for the Garage

- Wipe, brush, scrape and hand clean parts before cleaning them with solvents, to reduce the contaminants in your solvent solution.
- Use dirty solvent for initial cleaning and then a clean solution for the final cleaning. When the clean solution starts to get dirty, use it for your first stage. Dirty solvent can also be filtered and reused.
- Use citrus-based solvents or switch to an aqueous cleaning system instead of a solvent-based parts washer. When buying a new cleaner, check the Material Data Safety Sheet (MSDS) for important information on safety and proper disposal.
- Keep lids on all solvents and turn off your solvent sink when not in use. This will help prevent losses due to spills and evaporation.
- Keep spent solvents and other wastes such as oil and antifreeze separate. Mixing wastes will limit your ability to recycle them and increase the amount of hazardous waste that must be managed.
- Use funnels or pumps when handling liquid products or wastes when possible.
- Consider using a pressure washer or steam cleaner to wash engine compartments and vehicles to reduce water use.
- Practice good housekeeping to prevent spills, reduce the need for absorbents, and minimize floor washing.
- Collect any wastewater from uncontained washing such as floors and large components for proper disposal or recycling.
- Try using retreaded tires, re-refined motor oil and engine oil analysis to reduce waste generation.
- For items that cannot be reduced or reused such as used antifreeze, lead-acid batteries, motor oil, oil filters, contaminated solvents and scrap tires, visit www.earth911.org to find recycling options.

Source: Automotive Repair and the Environment, Georgia Tech Research Institute (1998).

Macon collection, continued from page 1

Channel 13 was taping another event at the mall and “got wind” of the swap and taped it as well.

Long lines started forming early on Wednesday and Saturday mornings as people waited to swap their mercury thermometers for mercury-free models. The large turnout for the event demonstrates that the citizens of Macon recognize the dangers posed by mercury in thermometers.

School collections

In addition to supporting events such as this one across the state, P²AD, in cooperation with the Georgia Department of Education, has facilitated the removal of mercury in school science labs and health clinics. Three school districts have taken advantage of the program, removing elemental mercury and devices that could release mercury in the school if broken. In total, 155 pounds of mercury have been removed from schools and households. This process has also shown a number of schools the importance of taking the time to inventory other old lab chemicals no longer in use, and properly dispose of them.

Because of the inability to destroy mercury without further contaminating the environment, the preferred management method for mercury is recycling. This avoids the need to mine for new mercury to produce the shrinking number of new (largely non-residential) mercury-containing products.

If you would like more information about how your school system can hold a mercury collection event, contact David Gipson at (404) 657-5208 or david_gipson@p2ad.org.

Mercury Collection Impact

155 pounds have been collected to date, which equals 70,215 grams.

If one gram can contaminate a 20-acre lake, how many lakes could 70,215 grams contaminate?

Commercial food waste—turning a problem into a product

Stakeholders search for new home for metro Atlanta food waste

by Teresa Shiflett, Pollution Prevention Specialist

Just think of what must happen to the food prep waste, spoiled produce, and uneaten scraps at every corporate cafeteria, sporting event venue, convention facility, concert venue, hotel, hospital, school cafeteria, grocery store and restaurant in the city of Atlanta! While there are currently no viable alternatives for businesses to process this waste other than landfilling, P²AD and a number of other organizations are working to change that.

The problem

Waste food is one of the most troublesome components of municipal solid waste. Typically composing over 14% of our solid waste volume, these organics reduce the life of our landfills, are the source of much of the odor concerns related to residential/commercial garbage, and their weight (due to high liquid content) makes them costly to transport. Once in landfills, their degradation causes production of global warming gases such as methane, and their liquid byproducts percolate through the landfill, carrying with them any metals, household chemicals and other contaminants that must be pumped and treated lest they become a cause of groundwater pollution.

First steps toward a solution

The positive side of food waste is that it is largely a recover-

able waste stream, and by diverting it for proper composting, it not only ceases to be a problem to be managed—it becomes a valuable product for sale. Compost has many benefits as a soil amendment, including building soil structure, improving moisture retention, increasing organic content necessary for plant growth, and reducing soil erosion.

ies, corporations generating food wastes, grocery stores, processors of organics and food wastes, haulers, university researchers, state regulators, non-profit community-based organizations, local governments, and the federal government are meeting to develop an action plan to address perceived barriers to the successful implementation of a food waste composting infrastructure.

On Dec. 4, 2003, P²AD hosted a Commercial Food Waste Composting Roundtable for Metro Atlanta. Stakeholders listened to researchers from the University of Georgia and from experienced food waste composting planners from Massachusetts regarding the status of large-scale composting in Georgia and the lessons learned from implementing a grocery store pilot food waste composting project in an urban area. This facilitated session generated much discussion on significant issues that need to be resolved before successful food waste management options can be implemented in metro Atlanta. Issues raised were grouped into the following general categories: collection and transportation, processing facilities, end-use markets, regulations, and incentives.

Working groups established

At the request of the stakeholders at this meeting, P²AD assumed the role of coordinator for

Did you know?

- ◆ 2.6% of all food residuals in the US are currently recovered
- ◆ 21 tons of food waste are generated annually in the US
- ◆ Composting of this waste would be the equivalent of taking 2 million cars off the road, in carbon emission reductions
- ◆ 27% of all food that is produced in the US is thrown away
- ◆ Disposing of food waste in the US costs approximately \$1 billion/year

Source:
EPA, www.epa.gov/jtr/docs/food.pdf

A series of discussions have begun in metro Atlanta regarding food waste composting for commercial businesses and institutions. A diverse group of stakeholders from universities, state-operated cafeterias, private food service compa-

See **Food waste**, page 10

P²AD launches Partnership Program

Partners benefit from technical assistance, regulatory flexibility

P²AD officially opened enrollment in its new Partnership Program Feb. 1. A voluntary initiative, the Partnership Program is open to any organization that operates in Georgia, and includes four Partnership levels designed to fit the goals and efforts of various organizations interested in reducing pollution and saving money.

“Our goal for this program is to support and reward the voluntary efforts of our members to prevent pollution,” said Bob Donaghue,

assistant director of P²AD. “Environmental stewardship makes good business sense, but some companies just don’t know how to get started. We provide them with the assistance to develop a program, and offer increased benefits as their commitment to pollution prevention increases. On the other hand, we also have a number of recognized environmental leaders in the state. These Partners gain valuable opportunities to mentor others, are eligible for regulatory flexibility, and ultimately work side-by-side with policy makers to improve the environmental quality of Georgia communities.”

Through the Partnership Program, P²AD’s staff works directly with companies and organizations across a broad spectrum of industries and businesses, with both public and private sectors, and small and large workforces. The Partnership Program allows an organization wishing to begin pollution prevention activities to tap into P²AD’s expertise to develop an effective environmental program. Interested organizations may submit applications for enrollment until Apr. 30. There will also be a second enrollment period this year, from Aug. 1 to Oct. 31.

The Partnership Program entry level for each business or organization is different and based on activities already in place as well as those to be completed during the term of Partnership: three years for

Performance Track welcomes new GA members

This winter, EPA welcomed Yamaha Motor Manufacturing Corporation of America, International Paper, and Lockheed Martin as members in its National Environmental Performance Track Program. Participating facilities receive a low priority status for inspections; reduced regulatory, administrative and reporting burdens; and public recognition. Performance Track currently has 344 members from 43 states and Puerto Rico.

For more information on EPA’s National Performance Track, visit www.epa.gov/performance-track.

White, Yellow and Red Ribbon; unlimited at Blue Ribbon level.

All P²AD Partners become part of a cohesive network of organizations that share a common goal – to prevent pollution at the source and create and maintain sustainable business practices. Benefits increase as a business or organization moves through the partnership levels. Becoming a P²AD Partner also enables organizations to more easily meet the requirements for national and international recognition programs, such as the U.S. Environmental Protection Agency’s (EPA) Performance Track.

To apply for the P²AD Partnership Program, visit www.p2ad.org. For more information on the program, contact Francisco Cordero at (404) 231-5522 or fcordero@envsource.com.

Partnership Levels

White Ribbon Partner

Open to government and non-governmental agencies, environmental groups and others that provide services and support to the Partners.

Yellow Ribbon Partner

Organizations that are starting to develop proactive environmental policies, management plans, and educational efforts.

Red Ribbon Partner

Organizations that are proactively implementing pollution prevention and cost-saving strategies, while integrating environmental stewardship into daily business operations, all within the framework of an environmental management system.

Blue Ribbon Partner

Organizations that have reached the highest achievement level and are model environmental leaders. Blue Ribbon Partners commit to strengthen their environmental management systems over time through the use of pollution prevention, community outreach, and other sustainability practices, and act as mentors for Red and Yellow level participants. The Blue Ribbon level coincides with EPA’s National Performance Track recognition program.

Lockheed Martin reduces costs while improving aircraft painting efficiency

by Bill Vondersmith, Pollution Prevention Engineer

Lockheed Martin Aeronautic Company (LM Aero), located in Marietta, manufactures C-130J cargo aircraft for the U.S. military and other governments around the world. A key component of its operations is paint spraying. Over the past nine years, as they have worked with P²AD, LM Aero has become a real pollution prevention (P2) leader in the state, and been recognized nationally for its efforts. One recent project with P²AD has reduced paint and solvent use while improving quality and profitability in paint spray operations.

Background

Early in 2002, P²AD helped conduct a waste reduction assessment at the C-130J painting operation. Consistent with LM Aero's ongoing P2 efforts, the project was authorized and a team was assigned with the mission of reducing paint and hazardous materials needed to complete the C-130J aircraft.

As a result of the aerospace National Emissions Standards for Hazardous Air Pollutants (NESHAP) promulgated by the U.S. Environmental Protection Agency (EPA) in 1995, LM Aero converted to high volume low pressure (HVLP) paint spray equipment. HVLP equipment operated at 10 psi or less, as required by NESHAP, can produce a high application efficiency and good quality when applying low to medium viscosity coatings. How-

ever, over the years LM Aero had experienced problems with coating thickness when applying high viscosity two-component primers and topcoats to C-130J aircraft with the HVLP equipment. Adding more coating than is needed for corrosion protection results in additional hazardous emissions and increases the weight of the aircraft. Additional coating thickness on a large aircraft like the C-130J will increase fuel consumption, inflating operational cost and emissions to fly the aircraft.

Process Improvements

Through hands-on paint and coating training at the Iowa Waste Reduction Center (IWRC), support personnel from the C-130J paint area were able to test alternative spray equipment using LM Aero's coatings. As a result, they identified an airless, air-assisted system produced by Kremlin that had potential for improving their process.

Back at the plant, initial tests were run comparing the Kremlin system to HVLP and conventional spray equipment. The results showed that the Kremlin unit was more efficient in spraying the high viscosity coatings.

In order to switch to this higher efficiency equipment, LM Aero had to first provide a test plan to the Georgia Environmental Protection Division (EPD) to have the airless, air-assisted equipment approved for use under NESHAP and the



LM Aero staff painting the tail of a C-130J.

company's state air permit. Test results confirmed that the airless, air-assisted Kremlin equipment was more efficient, producing less air emissions and waste, and the Georgia EPD Air Protection Branch approved the Kremlin unit for use.

In addition to converting to the airless, air-assisted equipment, the shop has replaced three 12-gallon pressure pots with a central supply, providing better control of paint waste and pressure settings. Six spray guns are fed through 100-foot air and fluid hoses from the paint supply. Also, pressure control has been added at the spray guns for adjusting the pressure based on the elevation at which they are being used.

By upgrading equipment, changing procedures, and providing its C-130J painters with specialized training and time to acclimate themselves to the equipment, LM Aero has reduced paint usage by 27% and hazardous waste by 19%, yielding a 30% material cost savings.

For additional information on paint spray P2, contact Bill Vondersmith at (404) 657-7446 or bill_vondersmith@p2ad.org.



Calendar of Events 2004

- Mar. 26-27 Staples and Best Buy are hosting a **Computer Electronics Recycling Event** at the Best Buy at 975 North Point Dr. in Alpharetta, from 10 am to 5 pm. The following items will be accepted: TVs, monitors, CPUs, scanners, printers, fax machines, printer cartridges, stereo equipment, VCRs, phones and rechargeable batteries. A \$10 fee will be charged for TVs under 27" (\$20 for larger) and computer monitors.
- Mar. 30-Apr. 3 The **30th National Association of Demolition Contractors Annual Conference** will be held in Orlando, FL. For more details, contact the NADC at (215) 348-4919.
- Mar. 31 Join the AgP2 Program, the Georgia Soil and Water Conservation Commission and the UGA Extension Service for a workshop explaining data collected about **Agricultural Water Use in Georgia and the Requirements for Installing Water Meters** on all permitted irrigation wells. The workshop will be held in Dublin at the Cloverleaf Restaurant. Subsequent workshops on this topic will be held on Jun. 8 in Appling County, and Jun. 22 in Bulloch County. Contact Gary Hawkins at (229) 386-3914 or ghawkins@tifon.uga.edu for more information.
- Apr. 19-22 The **National Environmental Assistance Summit** will be held in Baltimore, MD, hosted by the National Pollution Prevention Roundtable and U.S. EPA. This conference is a merger of the National Pollution Prevention Roundtable Spring Conference and the National Compliance Assistance Providers Forum. For more information, visit www.p2.org/summit2004.
- Apr. 29 Dr. Karl-Henrik Robèrt will be speaking at the Georgia Institute of Technology as part of the **Anderson/Interface Chair Natural Systems Speaker Series**. The lecture is co-sponsored by the Institute for Sustainable Technology and Development and the School of Industrial & Systems Engineering. Visit www.sustainable.gatech.edu for more details.
- May 11 The AgP2 Program will be hosting a workshop **Beef Cattle Forages and Finishing: Making the Most of Your Cattle Farm** at the NW Georgia Research and Education Center's Redbud Farm. Lunch is provided, but there will be a registration fee of \$5.00. For more information, contact Julia Gaskin (706) 542-1401 or jgaskin@engr.uga.edu.

Food waste, continued from page 7

stakeholder working groups to address each of these categories. One meeting for each designated

working group was scheduled. Presentations from stakeholders and a facilitated session to develop action items are included at each meeting. The goal is that each working group will

develop an action plan by June 30 for removing its specific food waste

composting impediments. Notices of the meetings are posted at www.p2ad.org, and all interested stakeholders are invited to attend.

Georgia Food Waste Density Mapping Project

During the first working group meeting hosted by the City of Atlanta on Feb. 5, P²AD announced efforts to map, through the use of Geographical Information Systems (GIS), the location of major commercial and institutional food waste generators in the 11 metro Atlanta area counties plus Bartow and Cherokee counties. Estimated quantities generated will also be input into this system. This Georgia

Food Waste Density Mapping Project is being developed by P²AD in cooperation with U.S. Environmental Protection Agency (EPA) Region 4 and the DNR Program Support Division, and patterned after the food waste mapping project implemented by the Massachusetts Department of Environmental Protection (found online at www.state.ma.us/dep/recycle/files/foodwast.doc).

For more information about this project, or to register for a working group meeting please contact Teresa Shiflett at teresa_shiflett@p2ad.org or (404) 657-7440. For information about other solid waste reduction initiatives, please visit www.p2ad.org.

For more information on the composting research of P²AD Partner, the UGA Engineering Outreach Program, visit www.engr.uga.edu/service/outreach/Articles.htm #composting