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Comments

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Blackhawk Construction

A \$1.64 million plant improvement project is well underway at the Blackhawk Facility. The Participant Committee for Blackhawk approved the project nearly a year ago, setting in motion much needed work in electrical and dewatering systems, as well as roadway repairs in the plant.

Participants at Blackhawk are the City of Friendswood, Municipal Utility District (MUD) No. 55, Baybrook MUD No. 1, and the City of Houston.

Gordon Pederson, Municipal Facility Manager, and Jerald Landis, Area Supervisor for Municipal Operations, described the different areas affected by the Improvement Project. Pederson said about half the cost is going for major improvements for electrical supply and control at Blackhawk.

"Blackhawk was originally built during a copper shortage," he said. "The plant met code as it stood in 1980, but we had aluminum buss bars (like breakers in a home, but bigger) and no ability to turn off one part of the plant at a time." *continued on page 6*



Mulch news

Disturb enough dirt on a big enough piece of land and you will need to comply with federal regulations on controlling erosion and the loss of soil into storm drains and streams.

"Most contractors use plastic silt fences and hay bales, and they work pretty well," said Gordon Pederson, Facility Manager for GCA's Municipal Program. "But at Gulf Coast we have been interested in the uses of mulch and compost for about 15 years."

Pederson is a member of Compost Advisory Council of Texas and was formerly on the national board of the U. S. Composting Council.

"Last year the Texas Commission on Environmental Quality (TCEQ) and the U.S. Environmental Protection Agency (EPA) conducted tests in the use of mulch and compost to control erosion and sediment movement," according to Pederson. "It really worked well, so I wanted to use mulch at Blackhawk instead of other methods."

The mulch selected was first tested at GCA's Central Laboratory to

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Above: Foundation work is underway at Blackhawk Facility for a new building to house upgraded electrical switchgear. Foreground is a mulch berm being used to control silt runoff during construction. Top right: Mulch-filled plastic rings protect drains in the plant.

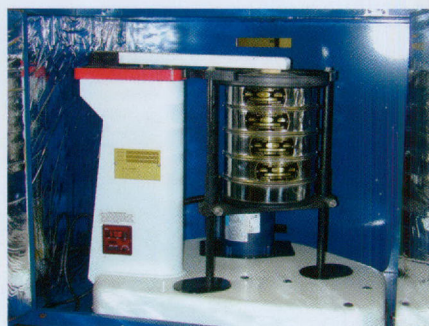
New Compost Testing at Central Lab



The Texas Department of Transportation (TX DOT) requires compost suppliers to test their compost according to the United States Composting Council's (USCC) Seal of Testing Assurance (STA) program requirements. TX DOT, various counties, and municipalities purchase compost for different applications such as erosion control in flood prone areas, landscape use in public parks and grounds, or mulch around trees planted on esplanades.



Central Lab was approached to develop the USCC's testing procedures in 2002. Central Lab developed the procedures in two phases. Phase I involved adapting wastewater methods that were already in place to analyze compost matrix. Once Phase I was accomplished, Central Lab initiated Phase II, which involved purchasing new equipment and implementing new procedures. In February 2003, Central Lab became certified for compost testing by the STA program. Currently, Central Lab analyzes compost for approximately 10 clients.



Above: The mechanical sieve separates compost by size. Right: The blender blends dry compost into small sizes so it can be tested for heavy metals.



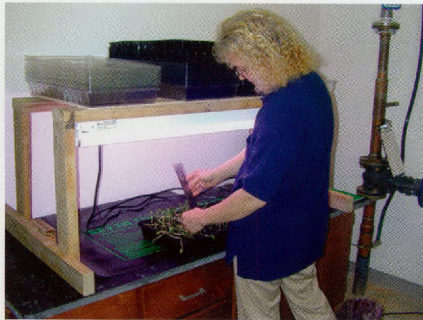
Henry Chiu, Assistant Lab Manager, explained the complex procedure. "When a compost sample comes in to Central Lab, it is logged in to the Lab Information Management System (LIMS). If the company requesting the testing is an STA program member, it is indicated as such in LIMS. STA program

members receive special reports, called Compost Technical Data Sheets (CTDS) with the STA logo. Non STA members are not allowed to use the STA logo on their CTDS." A two-liter size sample is measured and put through a mechanical sieve, which separates the compost according to particle size. The various fractions of compost are used to calculate percent particle distribution. The portion of the compost that has passed through a 3/8-inch (9.5 mm) sieve is used for testing and the tests are:

- Total Solids
- Organic Matter
- Nutrients and Minerals (Calcium, Magnesium Potassium, and Phosphorus)
- Conductivity
- pH
- Total Nitrogen
- Respirometry (Carbon Dioxide Evolution Rate)
- Seedling Emergence and Vigor
- Pathogens (Fecal Coliform)
- Heavy Metals

Most of these analyses take several days to complete. According to Chiu, the Carbon Dioxide Evolution Rate takes one day to set up and another four days, with daily titration and

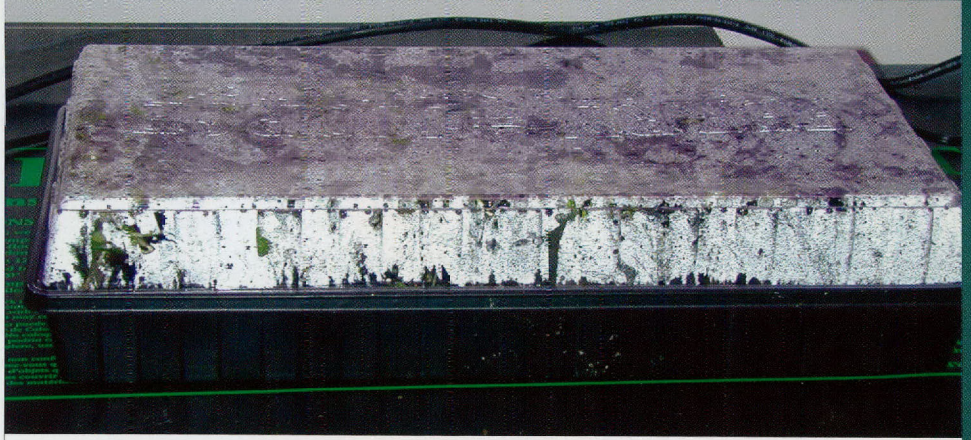
changing the reagents, to complete the test. Fecal coliform is another time-consuming test. A buffer solution is added to a pre-determined weight of compost and churned with equipment called a stomacher. The fecal coliform bacteria in the compost are leached to the buffer solution. Then the buffer solution is diluted in culture medium in multiple fermentation tubes and incubated to check for presence of fecal coliform. If a tube shows positive response to fecal coliform, it is confirmed using a confirmation culture medium.



Counting and measuring the cucumber seedlings.

Seedling Emergence and Vigor testing is carried out in the germination room where a grow light is timed to provide 14 hours of continuous light and 10 hours of continuous darkness. Cucumber seeds are used in this test. After 14 days, the cucumber seedlings that emerge in the compost and the control are counted and their lengths measured. Seedling Vigor and Emergence are calculated by comparing the statistics of the seedlings grown in compost against those grown in a control.

After all of the testing is performed, the results are entered



Cucumber seedlings under the grow light

into LIMS. The fecal coliform and heavy metals results are compared to EPA Class A Standards published in 40 CFR sec. 503. Any fecal coliform or heavy metals that exceed established limits would be indicated in the reports.

“Compost users and consumers benefit from the STA testing program,” Chiu added. “If a bag of compost has the STA logo on it, it means the compost has been tested by a certified laboratory and is safe to use for the application at the rate it is intended.”



Ph and conductivity testing in process



The stomacher is used to churn the compost with a buffer solution.

Sam Dell'Olio

Comments

Sam Dell'Olio is a native Galvestonian who genuinely believes in public service. His dedication goes much farther than the once or twice monthly meetings of the Board of Directors of Gulf Coast Waste Disposal Authority; a Board that elected him Secretary.

"I enjoy public service. I enjoy serving others. I enjoy working on boards," Dell'Olio stated.

He was first appointed to the GCA Board about six years ago by then Gov. George W. Bush to represent Galveston County. Sam and his wife, Miriam, also a Galveston native, had lived in many places around the country as Sam managed several operations for Coca-Cola. But, when the opportunity presented itself, they jumped at the chance to return to the Island and build a home. It was in Galveston that Sam took his first job at Coca-Cola. He was just 14.

"That was the original Coke plant in Galveston. They did the bottling locally, and I worked there all through high school and then through college. The deal was that if I continued to work for them, they would pay for my

"I enjoy public service. I enjoy serving others. I enjoy working on boards."

college. But, I didn't have any option on where I was going," he said.

This was not Coca-Cola Corporation, but was a Coke franchise headquartered in Fort Worth, and that's where Sam spent his first years out of college. After that, he and Miriam were based in San Bernardino, California, for some 15 years; back to Texas in El Paso; then, after a series of business buy-outs and reorganizations within the Coke operation, they landed in Salt Lake City, Utah.

From Salt Lake, Sam was responsible for a Coke empire reaching from the Mexican border to Canada. Look at a map. That includes Montana, Idaho, Wyoming, Arizona, Nebraska, Nevada, Utah, part of California and part of Washington State . . . altogether some 10 states.

"They wanted me to acquire plants. When I left after 11 years, we had 35 plants and two production centers. But, Miriam and I always knew we wanted to come back, and we already had a lot in Galveston to build a house on. When I retired, we built that house."

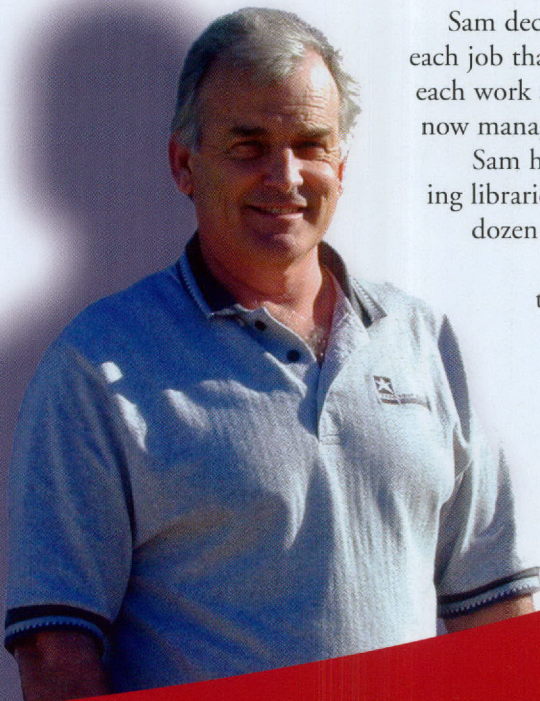
As it turned out, the house building exercise led to Sam's next profession: banking. He got to know the owners of Bank of the West while financing his home construction. They said they were going to develop more bank branches and change their name to Texas First Bank.

"I said I didn't really want to take on another job, but I'd try it," Sam said.

Sam decided the only way he'd get into the banking business was to perform each job that happens in a bank. He worked as a teller, in the loan department, at each work station including sales and service. The plan must have worked. He's now managing for that banking company.

Sam has been and continues to be involved in community service including libraries, zoos and schools. He estimated he's worked with at least a dozen boards involving public service.

"Another thing the return to Galveston allowed me to do," Sam added, "is to become involved in a



Feature

program which trains married men to serve as Deacons in the Catholic Church. It's a five year program and includes earning a college degree in theology. I could never have done that with my travel schedule at Coca-Cola."

Becoming a Deacon allows Sam to perform many of the duties of a Priest. At St. Peter's in Galveston, he preaches and assists at all the masses every other week.

Sam and Miriam work together on a number of other church related activities, including training programs for lectors and ushers. Sam is also invited to speak to various groups in the area. The list of responsibilities is long and includes visiting the sick.

"It's a special feeling you have," he said, "a special calling. If you enjoy what you're doing, you can find the time . . . and if your wife is supportive, which she is. And she is just as active as I am."

Sam and Miriam have been married for 41 years and have a son, Richard. Richard and his wife, Marian, have two children, a girl, Danielle, 11 and a boy, Marcus, 6. Like a plot out of a romantic novel, Sam and Miriam were both born in Galveston only three days apart on July 4 and 7. They were in the same newborn room in the hospital. They made their first communion and confirmation together.

"But we didn't know each other yet," according to Sam.

They really didn't meet until high school. She went to the all-girls school and he to the all-boys. His cousin introduced them. They went together on and off through high school, and two years after high school they were married.

"Nine months and 10 days later, Richard was born. I went through college in three years instead of four. When you're married and have a kid, you have to get out and earn money."

Finally, with someone with Sam Dell'Olio's background, the question of New Coke just had to come up. No . . . wait . . . that's a whole 'nother story.



GFOA Award

Mark Schultz, Board Chairman, presented the GCA Finance Department its 15th consecutive Award of Financial Reporting Achievement from the Government Finance Officers Association (GFOA). Representing the Finance group at the March meeting was Nelda Allen, Senior Accountant.

The Certificate of Achievement is in recognition of work done on the 2001 Comprehensive Annual Financial Report (CAFR). This CAFR has been prepared in conformance with the Governmental Accounting Standards Board (GASB) Statement 34.

Compliance with GASB 34 was achieved some two years ahead of required implementation. The Certificate recognizes adherence to program standards and represents the highest award in government financial reporting.

GFOA is a nonprofit professional association serving nearly 13,000 government finance professionals throughout the United States.

Mulch news, continued from page 1

define particle size and chemical makeup. "We wanted to be sure there was nothing in the mulch which would leach out and cause a problem," said Pederson. The Lab utilizes the TMECC (Test Methods for the Evaluation of Compost and Composting Products) program. Such testing is available to anyone in the state doing commercial composting.

He also explained that control of runoff during construction is part of Blackhawk's responsibility under its Storm Water Permit. Use of mulch to block erosion is a "best management practice" as defined by the regulatory agencies.

Pederson added that the filtering fences commonly used around construction sites usually are damaged by vehicles, workers on site, or wind. The fences can also become clogged to the point that they fail.

"When mulch is used, the control berms can be walked over and even driven over without failing," he said. "The mulch catches the silt, and the water works its way through the berm. It doesn't dam or clog up like silt fencing, and the mulch does not wash away as long as it is properly installed and meets criteria for content."

At the end of the construction project at Blackhawk, all the mulch will be used on the plant site for landscaping. The only thing that goes to a landfill is a fabric sock that holds mulch in place around culverts on inlets.

"This system works and it works well," Pederson concluded. "I'm proud that Blackhawk can provide a demonstration of the effectiveness of this technology."

The benefits include reduced odors, reduced damage to equipment and a better working environment



An odor-control system will protect employees and equipment at the headworks

Blackhawk, continued from page 1

Landis explained that to work on any one part of the plant, it was often necessary to shut the entire operation down for hours at a time. "Not very efficient," he summarized. "It took great cooperation from the entities discharging to Blackhawk for treatment, and I have to give everyone credit for working with us over the years."

Included in the electrical work is a new main power feed into the plant, which includes a new transformer and main breaker. In addition, new switch gear is being centralized in an air conditioned building. This gear will enable operators to isolate small portions of the plant when maintenance is needed while the rest of the plant continues to do its job.

Another major component is a new dewatering press for producing dry sludge cake. Blackhawk has operated on one press for about 10 years with a portable belt press as backup. However, the backup had worked much beyond its expected life and has been retired. The second press gives Blackhawk the ability to reliably handle about 18 dry tons per day in the dewatering operation.

Also, electrical controls for both the old and the new press are being relocated to a drier area in the press and blower building to reduce corrosion of the equipment.

Odor control equipment is being added adjacent to the existing plant headworks where municipal sewage first enters the system for treatment. A filter employing a biological system will remove hydrogen sulfide from the mixing zone at the headworks and should, with negative pressure, treat the air from the receiving area.

"The benefits include reduced odors, reduced damage to equipment and a better working environment," Pederson said.

Landis described a new storage area for bulbs used in the ultraviolet disinfection system. "Those bulbs are expensive, so we want to have the least handling possible to reduce the chance of breakage." The storage building is on top of the old chlorine handling area. Chlorine was replaced with UV disinfection some 10 years ago.

Finally, some sections of plant roads were seriously deteriorated. The project will replace those areas down to the road base. All plant asphalt will be topped with a protective layer.

10th



Annual



Trash Bash

One time each year, many volunteers gather to “clean up” along the tributaries leading into Galveston Bay. The annual River, Lakes, Bays “N” Bayous Trash Bash is the largest statewide event focused on removing refuse from Texas waterways.

This year’s event was held on Saturday, March 29th.....a very unseasonably cold and windy day, according to Lori

Gernhardt, Manager of GCA Operations. Even though the weather wasn’t the best, thousands of volunteers showed up and picked up lots of trash and debris.

“The numbers are impressive, especially with the chilly weather we had to deal with!”

There were 12 clean up sites throughout the Houston/Galveston area, including San Jacinto River, Lake Houston, Lake Conroe, Little White Oak Bayou, White Oak Bayou, Galveston Bay, Sims Bayou, Armand Bayou, Greens Bayou, Dickinson Bayou and Offat’s Bayou. A total of 4,451 volunteers cleaned up nearly 94 tons of trash and recycled 573 tires. This brings the grand total of volunteers for the past 10 Trash Bashes to 43,647; the amount of trash removed to over 1,411 tons; and the number of tires recycled to 2,917.

Sponsors for this year’s Trash Bash included Chevron Phillips, BFI, Waste Management, Dr. Pepper, Texas Commission on Environmental Quality, Atofina, Houston-Galveston Area Council, GCA, Port of Houston, and Dow-LaPorte, along with many other local industries and organizations.

“I always like to add that, while removing all the trash is good in itself, teaching the thousands of kids who attend to take care of the world around them is even more important,” Gernhardt said.

University of Houston - Clear Lake location of 4th Annual WaterSmart Landscaping Workshop & Plant Sale

More than 300 participants visited the 4th Annual WaterSmart Landscaping Workshop and Plant Sale at University of Houston - Clear Lake.

Lori Gernhardt, Manager of Operations for GCA, reports that 225 attendees were from the Greater Houston Area and that the workshop featured 14 speakers, 24 exhibitors and 35 volunteers and staff. Gernhardt represents GCA on the WaterSmart steering committee.

The two keynote speakers were Malcolm Beck and Heidi Sheesley. Beck is known for his expertise in composting and Sheesley specializes in native plants. A total of 28 classes were held throughout the day. Topics included Growing Herbs in Houston and Low Volume Irrigation for the homeowner.

Host for the workshop was the Texas Cooperative Extension. Sponsors included GCWDA, Sea Grant Texas,



Watersmart, Galvestor Bay Foundation, Environmental Institute of Houston, Reliant Energy, Houston Endowment, and The Jacob and Terese Hershey Foundation.

Just a sampling of other topics covered at the workshop are organic lawn care, organic gardening, landscaping with native plants, landscape design, habitat landscaping, rainwater harvesting, backyard composting, and cooking with herbs.

Comments

Gulf Coast Comments

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