

**Summary Minutes  
Solid Waste Management Advisory Council (SWAC)  
May 19, 2011  
Lazarus Government Center  
50 W. Town Street  
Columbus, OH 43215**

**The Following Members Announced Their Attendance at Roll Call:**

Erv Ball, Health Departments  
Erin Miller, Municipalities  
Dan Harris, Ohio EPA  
Terrie TerMeer, ODNR  
Holly Christmann, Single County SWMDs  
Thomas Ferrell, Counties  
Chris Jacobs, Joint County SWMDs  
Joseph Denen, Municipalities  
Gary Sims, Private Recycling Industry  
Timothy Lynch, Townships  
Matt Trokan, Statewide Environ. Advocacy Org  
Belle Everett, Townships

Chuck Keiper, counties, arrived after roll call.

**SWAC Appointments/Re-appointments and Election of Officer**

The terms for seven SWAC members expire on June 23, 2011. Ohio EPA has sent recommendations to the Governor's Office for the seven seats, which include five re-appointments. Holly Christmann and Chuck Keiper were recognized for their contributions to SWAC since this will likely be their final SWAC meeting.

Since Ms. Christmann held the position of Secretary, the floor was opened for her replacement. Chris Jacobs nominated himself and Timothy Lynch seconded the motion. Chris Jacobs was elected Secretary on voice vote.

**Review of the February 17, 2011 meeting minutes**

Mr. Lynch MOVED to accept the February 17, 2011 meeting minutes presented today. Ms. Christmann SECONDED the motion and the minutes were approved on voice vote.

**General and Legislative Update**

Recently, a waste conversion facilities draft policy was sent to interested parties. It provided a framework on how Ohio EPA intends to regulate facilities that use thermal and biological conversion technologies, such as pyrolysis, gasification and anaerobic

digestion, to convert solid waste to fuels. A number of comments have been received and Ohio EPA is working through them.

The research, development, and demonstration rules have been filed. These pertain to bioreactor landfills that receive bulk liquids (i.e: leachate-recirculation). Other rule packages being worked on are the new construction and demolition debris landfill rules as well as a proposed package related to compost facilities. Ohio EPA also solicited comments on a proposal to beneficially use street sweepings.

U.S. EPA released a final rule that defines which materials are considered solid waste when burned and subject to emissions standards for incinerators and which are considered fuel and subject to less stringent boiler standards. In the final rule, the U.S. EPA expanded the range of materials to be characterized as fuel instead of waste. Also, U.S. EPA solicited written input on a national strategy associated with electronics stewardship.

### **Agency Restructuring**

Pam Allen, Chief of the new Division of Materials and Waste Management (DMWM), provided information on some recent changes at Ohio EPA. In order to save money and improve efficiency, three divisions have been consolidated into two and the responsibilities are divided between the Division of Emergency and Remedial Response (DERR), and a new division, DMWM. The clean-up related programs in the Division of Hazardous Waste Management (DHWM) were absorbed into DERR, and the majority of DHWM and the Division of Solid and Infectious Waste Management (DSIWM) combined to form DMWM.

### **Review of the February 17, 2011 meeting minutes**

Timothy Lynch moved to accept the minutes and Holly Christmann seconded the motion. The minutes were approved on voice vote.

### **Programs of the Darke County Solid Waste Management District (District)**

Krista Fourman, the Director for the District, started by providing the demographics for Darke County. The rural county bordering Indiana has a population of 52,200 and consistently ranks in the top Ohio counties for most agricultural production categories. The largest municipality is Greenville, with a population of 13,000.

The District is funded by a designation contract fee of \$6/ton. The designation contract fee was chosen because they are on the Indiana border and it allows for the fees to follow District waste into Indiana. The total annual revenue is about \$200,000, which pays for salaries, funding of the health department, as well as various recycling events.

The District achieves 95 percent recycling access through a combination of curbside and drop-off recycling programs. Greenville and two villages have non-subscription curbside recycling and 15 drop-off recycling locations are offered across the county. Other services provided by the District include christmas tree recycling, a countywide clean-up weekend, an electronics recycling day, a paper shredding day, a tire recycling day, and a household hazardous waste day. In addition to numerous educational presentations, the District also offers recycling for household batteries, cell phones and compact fluorescent bulbs.

The District is also active in the enforcement of open dumping regulations. The contract with the Darke County Health Department provides enforcement through the Ohio Administrative Code. The District uses the Ohio Revised Code, enforced by the county sheriff, to directly give notice to violators and the prosecuting attorney is used as legal counsel.

### **Industrial Sector Recycling Initiatives: Anheuser-Busch InBev**

Scott McHugh provided an overview of Anheuser – Busch InBev’s (AB InBev) Better World initiatives. Anheuser Busch combined with Inbev to form AB InBev in 2008. AB InBev is a leading global brewer and one of the world’s top five consumer products companies with 114,000 employees in 23 countries worldwide and \$36 billion revenue in 2010. The Better World Initiatives focus on responsible drinking, the environment, and community.

In 2010 AB InBev recycled 98 percent of their solid waste and byproducts and reduced total water usage by six percent per hectoliter of production and by 19.7 percent per hectoliter since 2007. They have also reduced total energy consumption by 3.7 percent per hectoliter of production in past year and by 14.2 percent since 2007.

In March of 2010 AB InBev announced a set of three aggressive global environmental goals by the end of 2012:

- A 99 percent recycling and reuse rate – compared to 98 percent today;
- A water usage goal of 3.5 hectoliters per hectoliter of production, representing a 30 percent reduction in water usage since 2007; and
- A ten percent reduction in carbon dioxide emissions and energy use.

Mr. McHugh shared many of AB InBev’s environmental and safety goals. These include achieving zero injuries, achieving the best environmental footprint (water usage, greenhouse gas emissions, and recycling), world contributions, environmental and safety compliance, and by-products revenue (zero waste to landfill).

A summary of AB InBev’s approaches specific to by-products was provided. The first is to eliminate material losses, improve brewing and packaging efficiencies and determine cost-effective, environmentally preferable ways to managing waste. Then the focus is on recycling all materials and byproducts that are generated throughout the processes.

Key waste streams include spent grains (used for cattle feed), beech wood chips (mulched), pallets (refurbished and reused), and waste water treatment plant solids (waste to energy). Aluminum, glass, paper and plastic are all recycled. The keys to success were to have a good plan in place that leverages the expertise of recycling experts, vendors, as well as involving the employees. There is a need to always challenge the status quo and communication ultimately is the key. He shared detailed diagrams for different facilities that mapped out the byproduct collection areas. These tools along with other written communication to facility employees are essential techniques.

### **Industrial Recycling Programs: Proctor and Gamble**

Vicki Weber provided a presentation on the recycling and conservation efforts of Procter and Gamble (P&G). P&G is a global company that provides consumer products in the beauty and grooming and household care categories. The company employs around 127,000 people in about 80 countries worldwide and has approximately 140 manufacturing facilities around the world.

As part of P&G's commitment to waste reduction, P&G's Global Asset Recovery Purchases (GARP) was started in 2007. GARP is charged with finding external partners who can turn waste and non-performing inventory into something useful. In 2007, P&G produced one million tons of solid waste, with less than 50 percent being recycled. GARP developed a Site Solution Provider (SSP) Program, installing a single waste management partner at each plant. Each partner is responsible for managing all recycling volumes, developing new solutions to current landfill and incineration end points, and driving better overall costs.

GARP has continued to grow as sustainability has become a hot topic at P&G and elsewhere. In late 2007, P&G developed a new set of sustainability strategies, calling for a ten percent improvement (since increased to 20 percent) in its operational sustainability measures (Energy, CO<sub>2</sub>, Water, and Waste) by 2012. By 2010, P&G had reduced waste disposal by 50 percent. Also in 2010, P&G set a new goal to reduce solid waste disposal to less than 0.5 percent of manufacturing inputs by 2020 and established a long term goal of having zero manufacturing waste going to landfill.

Ms. Weber provided examples of different resulting initiatives from facilities around the globe. One example was P&G's feminine hygiene manufacturing plant in Budapest that achieved its zero waste to landfill goal in 2008. The SSP at that site found that shredding scrap maxi-pads made them a desirable fuel source for use in cement kilns. Another example was a Cincinnati non-profit that employs survivors of brain injuries and uses diaper scrap to make industrial absorbent spill pads. Other examples included shampoo utilized for washing cars, off-spec toothpaste that is used to make high-performance polish for mag wheels and jewelry, and a paper product plant in Mexico that uses waste paper pulp to make an inexpensive roofing material. Earlier this year P&G's Auburn, Maine site became its first zero waste to landfill plant in North America.

### **Glass Study (Terrie TerMeer, ODNR)**

Ms. TerMeer started by introducing the new Chief of ODNR's Division of Recycling and Litter Prevention (DRLP), Ted Lozier. Mr. Lozier most recently served as Deputy Chief of the Division of Soil and Water Resources. It was also related that ODNR-DRLP recently announced the 2011 recipients of the Community Development, Market Development, and Scrap Tire Grants.

A comprehensive glass study was conducted by DSM Environmental in 2010. There is currently a very high demand for glass cullet by Ohio insulation and beverage container industries. The goal of the study was to examine the glass composition and generation rates statewide and to develop sound methodology to mitigate obstacles and current market barriers affecting glass recycling in the state of Ohio. The study identifies the current and projected demand for recycled glass cullet, including specifications and limitations to its use. DSM Environmental will provide strategies to help meet the demand for glass at the next Glass Stakeholder meeting set for May 31.

### **Ohio By-Product Synergy (Ohio BPS) Network (Mike Long, Project Leader)**

Mr. Long's Ohio BPS Network presentation addressed the emerging paradigms for materials management. Sponsors for the Ohio BPS Network include ODNR-DRLP, the Mid-Ohio Regional Planning Commission, and the United States Business Council for Sustainable Development.

BPS is the matching of under-valued waste or by-product streams from one facility with potential users at another facility to create new revenues or savings with potential social and environmental benefits. An example of BPS included steel slag that could be converted into a valuable raw material for cement production. A patented process was developed that uses steel slag in a cement kiln to create high-quality Portland cement. The partnership has increased profits for both companies, cut energy usage, and reduced greenhouse-gas emissions.

Barriers and struggles were identified as well as keys to unlocking potential synergies. The keys included signed agreements that set up a confidential consortium, data collection that allows for understanding across industries, involving regulators from the beginning, as well as diverse participation in the network.

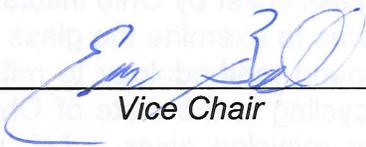
A list of current and potential BPS members was provided as well as the BPS work process overview. Synergies currently being implemented include caustic replacement of lime slurry, composting of filter cake, and composting and energy recovery of food waste. Developing synergies include foundry sand reuse, use of manganese and cosmetics for brick colorant, aluminum oxide reuse, paint sludge for anaerobic digestion, bulk bag reuse, and bio-solids/sludge for anaerobic digestion.

Mr. Long also indicated how the Ohio BPS Network would work in conjunction with the existing Ohio Materials Exchange resource. He also gave a detailed description of byproduct synergies being implemented by the Belden Brick Company.

**Agenda items for the August 18, 2011 meeting at Ohio EPA Central Office**

Product Stewardship was mentioned as a potential agenda topic for the upcoming meeting.

Mr. Harris declared the meeting adjourned.

Respectfully submitted:   
Vice Chair

Minutes approved on: August 18, 2011

Certified by:   
Secretary