



Nikki Haley
Governor

SOUTH CAROLINA
DEPARTMENT OF COMMERCE

Robert M. Hitt III
Secretary

Recycling Market Development Advisory Council (RMDAC) Meeting
SC Department of Commerce
American Starlinger-Sahm
11 Jack Casey Ct.
Fountain Inn SC 29644
10:00 a.m. to 1:30 p.m.

RMDAC

Esther Murphy, HCSWA
Ronnie Grant, Ekman
Wes Westbrooks, BMW
Norman Chandler, Republic Services
Kristen Brown, MYECO
Brad Dutton, FiberQuest
Glenn Odom, Retired
Angel Lara, Southeast Recycling Resources
Chuck LaGrange, Greater Greenville Sanitation Commission

ABSENT

Dan Chuy, Michelin
Roger Player, Dilmar Oil
Vic Carpenter, Kershaw County

COMMERCE STAFF

Chantal Fryer, SC Department of Commerce
Anna Lange, SC Department of Commerce

GUESTS

Carol James, SONOCO
Tina Huskey, Mumford Industries
Bill Laursen, Universal Environmental
Brent Allen, SC Tire Processing
Andy Spicer, Ph.D. USC Darla Moore School of Business
Jeff Cornell, American Starlinger- Sahm
Jimmy Cranford, American Starlinger- Sahm
Darlene Norton, American Starlinger- Sahm



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CALL TO ORDER

Wes Westbrooks, RMDAC Chair, welcomed members and guests at 10:12am

MINUTES

Minute approval was deferred to May meeting.

Wes Westbrooks thanked American Starlinger- Sahn for hosting us and introduced Jimmy Cranford from American Starlinger- Sahn.

Jimmy Cranford welcomed RMDAC to American Starlinger- Sahn. Staff had been in a temporary building on Pelham Rd during construction. The new facility opened in June. Having a US headquarters was a strategic decision of the company. American Starlinger-Sahn, Inc. is owned by Starlinger, headquartered in Vienna, and handles sales/service activities and spare parts supply for Starlinger & Co. GmbH, a leading supplier of machinery and complete lines for woven plastic bag production and PET recycling and refinement.

In the new location American Starlinger-Sahn, Inc. offers the full range of their products and services. Machinery from Starlinger textile packaging, Starlinger recycling technology, Starlinger viscotec, and Sahn is set up in the new machine exhibition area. A recoSTAR universal recycling line, the viscoSHEET and deCON equipment, as well as Sahn winders are available to customers for demonstration runs and trials.

In 2007 Starlinger bought Sahn in order to access their own line. They developed the circular loom the design that is used in super sacks, pet food bags, strapping, and sand bags across the world. They revolutionized strapping on cotton bales as metal straps were rusting and causing contamination. They developed plastic strapping that eliminated that contamination.

The Fountain Inn facility is the only sales rep. group for Starlinger to cover North and South America. They have a line that can take 100% rPET and have been in the recycling business for 30 years.

DASHBOARD

Anna Lange thanks RMDAC members for the market information that contributed to the annual report. The report will be available in draft form to RMDAC members for revision 3/9/16 - 3/14/16 and the final draft will be sent to the governor's office 3/15/16.

CPRC

Chantal Fryer reports that the CPRC is working on the Your Bottle Means Jobs campaign to increase PET bottle recovery. Staff will be at the Insane Inflatables run in Charleston March 26th engaging participants to take the pledge to recycle 2 more plastic bottles a week.



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The retail plastics committee has a goal to get 1 grocery store chain in the Carolinas to participate in film recycling by December. Staff is partnering with Food Lion on a flexible films campaign. Coordinating with APR and Moore Recycling and Associates on project. CPRC meeting and mixer is being scheduled for the fall (TBA).

CARPET

Glenn: Low price of PET is making it difficult for the carpet recycling industry. PET has no market. Nylon 6 is an issue because Shaw has not been able to get their new line up and running in Ringgold, GA there is a glut of nylon 6 so companies like Wellman are not taking a lot of that material. Recycling carpet needs an economical advantage to make business sense.

Chantal: The Carpet Recycling Committee set a goal to increase the recovery of carpet and carpet padding in SC. The counties that are taking carpet are Horry, York, Georgetown all have programs.

Richland County starting a program. In 2016 DHEC grants were requested by: Berkeley, Dorchester, Georgetown, Greenwood, Greater Greenville, Horry SWA, Lexington County DHEC awarded 6 grants.

Staff held a quarterly conference call this month and plan on holding a meeting/tour in the Fall (Lexington County?). Staff will continue to work with local governments and the business sector on outreach as new grants roll out. The CARE Conference is May 18-19 in Greenville, SC. The SC Carpet Recycling Committee will be represented through state recovery programs.

COMPOST

Staff at the South Carolina Department of Commerce teamed up with the Department of Health and Environmental Control Office of Solid Waste Reduction and Recycling division to host the Food Recovery Resource Exchange, a food recovery and compost meeting in Columbia, SC on Feb, 25th 2016. The stakeholders meeting was designed to explore opportunities for the recovery of food waste generated at businesses throughout South Carolina and learn about recycling and food waste diversion in the food recovery industry. Staff invited food banks, food pantries, food rescue partners, state resources, food distributors, and composters. DHEC will convene a working group to outline goals and strategies (April).

Staff met with compost haulers and sustainability managers in Columbia to discuss options for expanding organic recovery from large institutions. DHEC is offering small grants for this purpose for local governments.

DHEC is planning an Earth Day media engagement to announce a SC food waste reduction goal (April). We will let RMDAC know the details as we get them.

Staff is interested in convening a stakeholder meeting in Horry County (Fall) similar to composting events held in Greenville and Columbia.



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VIDEO

Project Goal: Develop 3 minute video on recycling economic impact.

- ✓ DHEC approved Video Project
- Working on procurement with Clemson
- Faces of recycling: Human Interest angle
- Need RMDAC members to recommend spokes people
- Need to develop list of questions/answers, ID b-roll, ID interviewees
- Plan to meet with Clemson to storyboard and draft story to tell through video
- Waiting to include economic impact data

OUTREACH

Project Goal: Develop robust communication and outreach efforts.

- Planned for 2016
 - Weekly tweet about recycling
 - Bi-monthly newsletter
 - 2 Small Business Saturdays for recycling
 - Press release on economic impact study information
 - RMDAC members send 1-2 speaking engagements events to speak about RMDAC and report back to staff on activity
 - YBMJ social media support from RMDAC
 - Encourage RMDAC members to include RMDAC information in at least 1 speaking engagement annually of their choosing and report back to staff on activity
 - Staff to speak at events and attend conferences
 - Commerce website undergoing overhaul; www.recyclinginSC.com to be revamped in 2016; encourage RMDAC to provide feedback on content for website.

ECONOMIC IMPACT STUDY

Businesses have been hesitant to reveal their pricing information. This has caused a lag in the study. Lifecycle costs and operational costs of landfills have been challenging to get access to the data. Joey Von Nessen is going through SWANA to get southeastern data. Joey can use this data – 2 of the 7 counties have responded so far.

The primary goal of this research effort is to determine the net increase in economic activity in South Carolina that would arise from additional household recycling at the commodity level.

- Determining Economic Gains Measured Through Job Increases and Tax Revenue
- Determining Economic Gains Measured through Cost Savings (Lifecycle Analysis)
- Document both the direct and indirect economic gains from increasing the rates of recycling for each commodity, including providing estimates at the household level that



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show all associated job increases, tax revenue increases, and lifecycle cost decreases from various marginal increases in household recycling rates.

- Planning for economic impact study findings meeting in May 2016

PLASTIS MARKET DISCUSSION

Plastic Markets Discussion

Tina Huskey, Mumford Industries: With the downturn in recycling markets, there are limited options available for PET but we have not hit a snag on nylon. Customers are not educated on options that are available, they will still go around and shop until they realize this is happening across the market. Businesses are experiencing significant short falls from the market dip. PET has to be clean and quality – that happens at the point of generation. The advantage is that it is keeping recycling companies leaner, people are returning to core business (paper, plastic) polypropylene, new PET coming on line more virgin getting pushed out; that will make it more challenging. Communities are not stopping recycling programs, like tourist towns like Myrtle Beach where people except recycling, sustainability programs are continuing.

Glenn: Nylon 66 is thriving.

Kristen: Is the problem glass contamination or contamination in general?

Tina: It just depends on the material

Carol: With the markets being what they are right now people can be choosy

Jeff: With companies taking the polymers to get them back to a pellet state, it's just not cost competitive to compete with oil– companies don't want to recycle if it's not cost effective. We are seeing marketing of products that are labeled "made from recycled content" some are using postindustrial from the company's own process. On other packages we are seeing "recyclable" or virgin but you have to recycle it yourself.

The lower the price of virgin, people will use that instead of washed flake. When oil is high, everyone wants post-consumer recycled flake.

Tough market for PET as it's not going up any time soon – lifecycle change vs cost.

Contaminated streams are an issue – crushed glass is a major contaminant and that all starts at collection with single stream. In Europe, they don't have this problem because they don't light weight, they source separate, and they don't have the thermoforms.

Glenn: Patagonia, North Face and Unifi are using this as a market opportunity to target specific markets and consumers by branding their products with post-consumer recycled content.

Angel Does Commerce take into consideration cost in the definition of recycling, what are we pushing?

Chantal: We use the general definition of resource recovery. One of the issues is that we don't take into account the life cycle costs for recycling and with low tipping fees, how recycling compares. It's economical to recycle at \$65/ton. The new study will take life cycle costs into account, the cost of siting a landfill etc.



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Brad: In addition, Asian companies don't have the same environmental regulations so they can dump wastewater into the rivers. Because of the standards we have here in the US with health and safety regulations, there is a higher cost to have clean drinking water and it all factors in to higher costs here as opposed to lower labor costs in Asia.

Glenn: Cost of labor is increasing in China and that should make it easier for US markets

Kristen: Each sector has its own issues: municipalities, vs business maybe we need to tackle them individually instead of together.

Chantal: Local governments sold recycling as a free service and that is an issue rebalancing the message needs to go out.

Chuck: Myth is that if you recycle and collect it you make money. There is a cost of recycling with labor, vehicles, travel, benefits, etc. we lose \$0.5 million a year to recycle. We are moving to roll carts but at \$25.00 apiece, we have had a low response rate for the opt in program. This will significantly drop our numbers. We are eliminating glass, and that has been a negative story that we have to respond to. Education is important to reduce contamination. I know we have a recycling goal of 40% by 2020? The number we need to point to is how much landfill space do we need? Let's flip it on its head, 0 landfills by 2050.

Carol James, Sonoco Recycling: We are renegotiating contracts based on market tiers, when markets are high customers will receive revenues and pay when markets are low. We used to receive plastics from businesses that separate and sort, now we can't even take mixed bales because there is not a market. OCC held at \$80 a ton we think it's going to be flat in 2016.

Brad: FiberQuest focuses mostly on PET, polypropylene and cotton. As far as virgin facilities there are several coming online: DAK setting up Q4; Q1 2017 Indorama (Auriga) – virgin and can recycle but will likely use their own postindustrial material; Nan Ya is expanding as well at its Lake City, SC plant. Polypropylene – customers have the upper hand as there is a good bit on the market and no expansions planned until 2018. China market is bad for PET; going for single digits 2,3,4 cents vs 12-13 cents a year ago. Glycol is up and in a month or recycled glycol will follow. Paraxylene is up too (paraxylene goes into terephthalic acid which is used to manufacture polyethylene terephthalate (PET)).

Chantal: How should we message what is happening with plastics recycling?

Angel: Recycling should be for the planet and not your bottom line.

Wes: It's all about education.

Andy: What you have identified is that there are public and private rewards. What is needed is a more holistic outline of cost and rewards. Jobs I don't know if that motivates people to change behavior. What you are talking about is a collective good do people believe and trust what you are doing? These are some of the questions to think about.

Chuck: Waste Lab has been our approach to look at how you get recycling into the classroom and how do you create an experience that is technology driven. We talk about different components of the waste stream. It is a platform that can be adapted to different grade levels. Right now the model we have is on the 5th grade level, but we can change that. We wanted a



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consistent experience for kids to learn about all the elements of recycling. We can attach a pre and post test to the experience to see what kids are learning. We will start beta testing next week.

Tour of Greater Greenville Sanitation's [WasteLAB](#)

American Starlinger Sahn Tour

Jeff: This facility was an investment in the US market. He handles sales for the Viscotec which is geared toward rPET and helps lift the IV of recycled pellets. They have solid state polycondensation (SSP) equipment viscoSTAR and deCON for PET pellets and flakes. It can take 100% post-consumer material and turn it into a food grade product to FDA standards for direct food contact including hot fill applications. The IV is the intrinsic viscosity – low IV is associated with brittle plastic, higher IV is easier to work with. The SSP does everything a Decon can do; however, a Decon cannot lift the IV like a SSP. Starlinger is the only company with a machine that can use 100% post-consumer and make a sheet for thermoformers.

Viscotec can take flake or pellet and make it into a food grade product that meets the infant standard for EFSA (very strict standard). The machine brings the material to the desired temperature for FDA (160 degrees C); it then drops to a holding vessel under high pressure which decontaminates the particles in the holding vessel to get rid of the harmful VOC's. This also decreases the boiling point for contaminants. You can pull the residence time for consumers to show that you have met the FDA standard. It is a 1st in 1st out process so that the material is evenly processed.

Visco Sheet: LNO & FDA. Don't have to do 100% flake, you can do in-house scrap, virgin, recycled flake, reusing the scrap is a clear advantage. There is an IV line that checks the IV before it goes into sheets so you don't lose a load. It can handle layers of multiple colors. There is another machine that has an eddy current that picks up the color range or thinness. It also offers separate cuts for different size sheets.

NEW BUSINESS

No new business.

OLD BUSINESS

No old business.

LUNCH AND MENTOR PAIRING

Wes: Mentees pick their mentors and use lunch to get to know one other.

Chantal: Chantal provided an overview of how the policy and communications committee were formed. In terms of policy, what can we do collectively that we can't do individually and discuss what policies make sense for the state.



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Communications – RMDAC reaching out to the public, using a 3 minute video to intro the industry, supporting YBMJ, supporting social media and making responses so we can react swiftly to negative media on the recycling industry.

ADJOURN

Next meeting will be held at Waste Zero in Hemingway May 17th 10:00am
Adjourned at 1:34pm