BUILDING A BETTER ENVIRONMENT

LOCAL INDUSTRIES INCORPORATE GREEN PRACTICES, GREEN THINKING

BY JENNIFER STREISAND PHOTOS PROVIDED

The perception that industry is careless about the environment is changing. In Greater Lafayette, several companies are making it part of their business model to incorporate green practices.

Perhaps the most well known of these green practices is the zero-landfill policy at Subaru of Indiana Automotive, Inc. (SIA). The term zero landfill is exactly what the name suggests.

Food waste at the SIA plant is composted on site, and the compost is given to associates to use in their gardens. (Previous page) Coyote are not uncommon visitors to the SIA grounds.

"Literally, we don't send anything to a landfill," confirms Tom Easterday, executive vice president of SIA in Lafayette. "We always like to say if you throw anything into the trash today, you put more into a landfill than SIA has for more than 10 years." Easterday credits the employees at SIA who consistently think of new ideas for reducing, reusing and recycling; and Denise Coogan, manager of safety and environmental compliance, for leading the effort to have everything in place to be a zero-landfill plant.

SIA of Lafayette currently makes the Subaru Legacy and Outback, and the Toyota Camry.

"Really, it is our associates (employees) that make our program work so very well," Coogan says. "We have gone from 459 pounds of waste per unit back in 2000 to 218 pounds per unit (this year's target). So we have had a 55 percent reduction since 2000."

And being green is profitable for SIA.

"Over the last five years we have actually had a net savings of $10 million from our environmental stewardship activities," says Easterday.

The effort to become a zero-landfill plant began in the late 1990s, he explains.

"What we decided to do was identify all of our waste streams. What categories of waste did we have in the plant, and coming into the plant, that we could reduce, reuse and recycle?" he explains.

Materials such as metals and plastics — used in abundance to make automobiles — seem easily reusable and recyclable, and procedures for doing so could be incorporated into the working operations of a manufacturing site. But, what about the trash that is generated every day at the plant — not in the making of cars, but in everyday life?

For example, Coogan says, food waste from everyone in the SIA facility is composted, and the compost is given to the associates to use in their gardens at home. The composting is done on site, using rainwater and other organic materials.

"We had a 28,539 pound reduction in 2013 in just food waste. So that has been a really good project for us," she says.

Small details, such as the type of paper towels used in bathrooms (brown), add to making SIA zero landfill. "Those get shredded and are used in the compost," Coogan explains.

However, in a plant as large as SIA, there is going to be a small amount of waste that can't be reused or recycled in the traditional sense. This small amount of waste gets sent to an Indianapolis company, Covanta Energy Services. There the material is burned and eventually turned into electricity. So, even this waste does not go to a landfill and is recycled to produce energy.

Alcoa, another industry leader in Lafayette, has achieved environmental stewardship with very ambitious projects. One such project was the 2013 renovation of a parking lot and north entrance to the facility at 3131 East Main St. in Lafayette. The main goal of the renovated parking lot was unusual, in that its ultimate goal was to reduce water runoff into the sewer system, which would ultimately improve water quality in the community, according to a published statement by Williams Creek Consulting, an Indianapolis company and the lead design engineer on the project.

While SIA is zero landfill, Alcoa's goal was to become a "net-zero" runoff

The lake at the center of SIA's test track is a sanctuary for blue heron and other birds.

facility, and that was accomplished, according to Williams Creek.

"Alcoa serves as a great example for other industries," notes Sara Peel, director of Watershed Projects at the Wabash River Enhancement Corp., a local environmental organization that makes water quality in the Wabash River one of its more visible projects. "Alcoa was not required to implement its parking lot retrofit," she says. "It demonstrates a number of different practices on a scale that cannot be found at other locations within our community."

Another Alcoa green initiative — unveiled this past October — was the construction of an Aluminum Lithium Aerospace Plant at its Lafayette facility. Aluminum lithium is considered a green initiative because it is a lighter weight material, and thus more fuel efficient in its products.

"This state-of-the-art facility positions Alcoa as the world's premier aluminum lithium supplier, offering the broadest portfolio of aluminum lithium components for next generation aircraft," said Klaus Kleinfeld, Alcoa chairman and chief executive officer, in an Oct. 2, 2014, published statement on the Alcoa website.

Some industries and organizations can use their visibility in the community to promote environmental stewardship beyond their own locations or factories. Two such examples are the Alcoa Foundation, which awards grant money for environmental causes in the community such as tree planting; and Tipmont REMC, an energy cooperative (which serves like a utility for customers in a specific geographic area) that asks its customers to donate a little extra money on their electric bills. That money is then used for environmental causes in the community. This program is called Tipmont REMC EnviroWatts.

Automaking materials, such as metals and plastics, are in abundance at SIA, but the manufacturer makes it a priority to reuse and recycle the materials.

While SIA has zero landfill, and Alcoa zero runoff, an energy-efficient residential home owned by the Purdue Research Foundation aims to become a net-zero energy structure, according to an April 24, 2014, Purdue University news release. The university is working with industries such as Whirlpool Corp. and Green Goose Homes to make the home — located at 545 Hayes St., in West Lafayette — as energy efficient as possible.

The SIA site includes prairie plantings, which attract wildlife and insects.

In this situation, net-zero energy means that no extra energy is used to heat and cool the home and no energy is wasted in the process. What makes this house somewhat different from other net-zero energy homes is that it is a retrofit, or a renovated home that was built in the late 1920s. Its name — ReNEWW — stands for Retrofitted Net-Zero Energy, Water and Waste and reinforces the concept of a retrofitted house instead of new construction.

All of these examples demonstrate that incorporating green initiatives is not easy and develops over time.

Easterday of SIA points out that good environmental stewardship is not a series of individual projects, but the development of best practices and the dedication to keep doing them. He uses the green metaphor of a fruit tree:

"It is very important to have in place a management system to make sure that when you pick that low-hanging fruit, you have a system in place to make sure that fruit does not grow back," he says. "You have to continue to prune that tree, and keep doing the best practices, and continue to generate ideas from associates on how to do them better."