Engineer & Information Tech-

nology magazine awarded its 2011 Black Engineer of the

Award to Tyree Minner, plant

manager at the Sterling

BEYA recipients were hon-

ored at the 25th BEYA Sci-

ence, Technology, Engineer-

ing and Mathematics (STEM)

Global Competitiveness Con-

ference and Awards Gala on

ors outstanding leaders in the

STEM fields and provides op-

portunities for professional

Chrysler has been the ex-

clusive sponsor of the BEYA

Awards Gala for nearly two

decades. Minner is the latest

in a long list of BEYA Award

technical expertise has made him a valuable member of the

Chrysler Senior Leadership

Team," said Fred Goedtel,

head of Assembly Operations,

standards for himself, Tyree's

leadership inspires others to

challenge themselves to high-

Chrysler's

Heights Assembly Plant -

where he directs the produc-

tion of the all-new Chrysler

200 and Dodge Avenger vehi-

2006, Minner has held a series

Since joining Chrysler in

Minner was appointed to

Sterling

"While establishing high

Tyree's vision, drive and

winners at Chrysler.

Chrysler Group LLC

er performance."

cles - in April 2010.

lead

development.

and recruiting.

The BEYA Conference hon-

Feb. 19 in Washington, D.C.

(BEYA)

Heights Assembly plant. Minner and other 2011

Year

President's

networking,

U.S. Auto Scene.

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GM Reports \$4.7 Billion Annual Profit in 2010

Motors posted a \$510 million was in a state of perpetual reprofit in the fourth quarter and \$4.7 billion for the year as it continued an impressive comeback from bankruptcy.

The profits were fueled by strong sales in China and the began to recover.

GM made 31 cents per share for the quarter, which included \$400 million in charges mainly for paying preferred stock dividends and buying preferred stock from the U.S. government. Without the charges, the company earned 52 cents, exceeding Wall Street's expectations. Analysts polled by FactSet expected 49 cents per share.

Revenue for the quarter was \$36.9 billion. That also beat analysts' estimates of \$34.3 billion.

For the full year, GM earned \$2.89 per share on revenue of \$135.6 billion.

"Last year was one of foundation building," said Dan Akerson, chairman and chief executive officer. "Particularly pleasing was that we demonstrated GM's ability to achieve sustainable profitability near the bottom of the U.S. industry cycle, with four consecutive profitable quarters."

It was the Detroit company's first profitable year since 2004 and GM's best performance since making \$6 billion in 1999 during the height of the pickup truck and sport utility vehicle sales boom.

pressive considering that with a report on March 1.

DETROIT (AP) - General from 2004 through 2009, GM structuring, trying to downsize its work force and shrink its factory capacity to match falling demand for its vehicles. The company lost more than \$80 billion during the pe-U.S. as the global auto market riod and almost ran out of cash in 2008, when the government began a bailout that eventually reached \$49.5 billion.

> With government financing, GM went into bankruptcy protection in June 2009, leaving a quick 40 days later cleansed of burdensome debt and labor costs. With lower costs and new models such as the Chevrolet Equinox - a small SUV that seats five - GM began its comeback.

Chief Financial Officer Chris Liddell said GM's bottom line also was helped by reductions in debt and pension liabilities following the bankruptcy process.

Shares of GM rose 17 cents, or 0.5 percent, to \$34.76 in premarket trading on the earnings announcement.

GM made less in the fourth quarter than it did during the three previous periods, mainly because of the charges and higher expenses from launching two new vehicles, the Chevrolet Cruze compact and Chevrolet Volt rechargeable electric car.

Meanwhile, GM, the last to report its 2010 annual earnings among major automakers, will be among the first to The full-year profit is im- report on February sales,

GM Engineer Coryell Chairs Detroit Chapter of ASM

AUBURN HILLS – U.S. Black tions at several key Chrysler manufacturing facilities, cluding St. Louis South Assembly plant and Twinsburg Stamping plant.

Chrysler's Minner Named Black Engineer of Year

"Tyree's values and integrity are demonstrated by his strong commitment to others through mentoring and leadership," Goedtel said.

"This is great acknowledgement of my passion to inspire young people to embrace the importance of pursuing and excelling in the fields of science, technology engineering and math," Minner said.

"I want to thank both of my 'families' – my wife and family who support my professional and leadership endeavors, and my Chrysler family who supports my love for manufacturing, mentoring and community service.'

Chrysler historically has been a leader in promoting diversity throughout its enterprise. The automaker was named one of the "100 Best Companies for Working Mothers" by Working Mother magazine 12 times, and has been recognized five times by the Human Rights Campaign Foundation as one of the country's leading corporations supporting diversity and inclusion.

In 2009 and 2010, Chrysler was named to Hispanic Business magazine's prestigious Diversity Elite 60, for implementing strategies to reach more Hispanic customers and to pursue more business with minority- and Hispanic-owned suppliers.

Early in 2010, CEO Sergio



U.S. Black Engineer & Information Technology magazine named Chrysler SHAP manager Tyree Minner, left, its Black Engineer of the Year. Chrysler Vice President Brian Harlow presented the award.

Chrysler's Global Diversity commitment of Chrysler's leadership team to the values and principles of diversity.

'Culture is the fabric that holds organizations together. It is not just an ingredient for success; it is the essence of success itself," Marchionne wrote.

of significant leadership posi- Marchionne assumed the role team and I are committed to

as executive sponsor of creating an atmosphere where all of our people feel re-Council and reaffirmed the spected and valued, because every person plays an important role in shaping our future, including employees, our supply base, our market-

ing and our dealer network. "Chrysler Group LLC and its people have a future with promise. We will reach the full measure of that promise "This is why my leadership only as one, united diverse team.

Engine on Buick Regal Turbo Can Take E85 Ethanol

PONTIAC, Mich – The 2011 Buick Regal Turbo is the first direct-injected turbocharged production car capable of running on any blend of gasoline or E85 ethanol, joining more than 5 million flex-fuel models General Motors has produced over the last 15 years.

The turbocharged Ecotec 2.0-liter inline four-cylinder engine that powers the Regal will help GM reach its goal of offering more than 50 percent of its production in flex-fuel

Attendees at the National Ethanol Conference in Phoenix had the opportunity to drive the Regal and the flex-fuel GMC Terrain during conference breaks last week.

sions of the 2.0-liter Ecotec gasoline, flex-fuel engines need



The turbocharged Ecotec 2.0L inline, four-cylinder engine that powers the Regal will help GM reach its goal of offering more than 50 percent of its production in flex-fuel models by the end of 2012.

turbo, GM powertrain engineers have significantly upgraded the new engine to accommodate both E85 and to incorporate refinements, according to GM officials.

Since ethanol requires a Compared to earlier ver- richer air-fuel mixture than higher flow-rate injectors. However, a flex-fuel engine can potentially have any combination of gasoline or up to 85 percent ethanol in the tank, so a sensor in the fuel system measures the blend in real time

This allows the engine management system to automatically adjust the mixture to provide improved performance and reduced emissions and fuel consumption.

"Drivers would step on the gas to accelerate and then have to wait for boost and power to be generated," he said.

"The twin-scroll turbocharger helps the engine generate power and torque when the driver needs it for passing maneuvers or merging onto a highway even at low engine speeds.

"The 2.0-liter Ecotec turbo produces 258 lb-ft of torque Stainless steel fuel lines pro- from 2,000 to 5,500 rpm, making it leel like a much-larger V6 engine while still delivering four-cylinder efficiency." Other changes to the turbo engine for 2011 go well beyond the addition of flex-fuel capability. The 2.0-liter Ecotec turbo has a new precision sand cast aluminum cylinder block that GM says provides better durability while transmitting less noise and vibration than lost foam casting used previously. The end result is a quieter and more refined power plant, GM officials say, that helps the Regal achieve best-inclass levels of noise, vibration and harshness while delivering the performance expected of the best import sport sedans and the ability to operate on current and next-generation renewable biofuels. Biofuels have had a curious history - back in 2006 they were seen as the relative savior of the internal combustion engine, while today the industry has moved on to hybrids and EVs. GM is still bullish on FlexFuel, however.

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models by the end of 2012.

U.S. Auto Scene

by Gerald Scott

Editor

If you don't think that materials science is important or visible as relates to the greater auto industry, you must not have gone to lunch with GM materials engineer Jason Coryell recently.

Coryell, 31, is a materials engineer at the GM Tech Center in Warren and he also doubles as the chair of the ASM Detroit Chapter, the local chapter of the international materials society members.

Coryell is a legacy-GM employee - his father Jim was a materials engineer for GM who retired out of American Axle & Manufacturing (the former Chevrolet Gear & Axle) a few years ago. So, like father, like son.

"The Society, ASM, I've been a member since I was in high school, actually - not many members can say that, but I joined in 1997," Coryell said.

"Up in Saginaw, my father, again, you can tell he's a mentor, he ran through the officer rotation, he was at the head of the Saginaw Valley chapter at the time. So I became a student member in high school and I was able to get some scholarships through college, which really helped, through ASM.

"I've stayed involved with ASM, there's a lot of outreach programs where we're trying to get materials science - engineering curriculum into even middle schools and high schools as elective courses. We have scholarship programs for students – ones that I fortunately took advantage of.'

As chair of ASM, Coryell is organizing their big March 14 dinner banquet in Farmington riously.

speaker. The popular McElroy's topic is "Let's Hope the Three Have Really Big Learned their Lesson: What to Look For'

Hills, one that will have auto

expert John McElroy as guest

The event is being co-sponby AFSsored the Detroit/Windsor Chapter (American Foundry Society) and you don't have to be either an AFS or ASM member to attend this popular function.

ASM dinner tickets are \$25 with an advanced reservation and \$30 without, or \$20 for retirees/unemployed and \$5 for students with I.D.

The banquet will be held at Vladimir's Banquet Facility, 28125 Grand River Ave. in Farmington Hills. For reservations or information, call the ASM office at 586-573-0700 or admin@asm-dee-mail to troit.org.

Coryell made his remarks about what ASM has done for his career over lunch at the Olive Garden on Van Dyke Ave. in Warren, which is notable because the former Chevrolet Central Office (CCO) is located directly across from the restaurant at the GM Tech Center campus. In the late 1990s, Coryell actually had a college internship CCO, something that at helped him gain his current job at General Motors.

Coryell has a materials science undergraduate degree from the University of Michigan in Ann Arbor along with a master's degree from the Colorado College of Mines.

He's amused to note that his father Jim is a Michigan State grad while Jason and his brothers are all U-M grads, meaning every October the Corvell family takes the State vs. U-M football game very se-



Jason Coryell

Otherwise, Jason Coryell likes what ASM membership has done for his career.

'The way I look at it, my No. priority is that you're supporting your own profession. You're only successful if your profession continues to grow and others look to it as a valuable resource. We provide a lot of networking opportunities . . . technical, and nontechnical people alike," he said.

'The Detroit Chapter has been around since 1913 - so we've got our 100-year anniversary coming up. It started as a heat-treating society, and it was focused on steel. ASM used to stand for American Society for Metals, but now there's no acronym, it's actually called the Materials Information Society, they kept the 'ASM' name as kind of a branding decision, obviously. They cover all material, everything from medical device materials to polymers and ceramics.

"We have monthly chapter meetings, we try to get a good cross-section of speakers of wider interest. We've had Dr. Alan Taub (of GM), we've had Stan Ovshinsky, we've had CEOs of heat treaters, university professors. We try to speech, about 7:30 p.m.



Auto expert John McElroy will be the keynote speaker at the ASM banquet dinner on March 14 in Farmington Hills.

bring in a lot of different speakers.

"We have about 1,100 members, the largest ASM chapter. There's probably about 13,000 members worldwide - just recently it's become more of an international society, so we have a few chapters overseas that have started up.

"For me, the ASM is really the declarative society for technical knowledge, it's a support of the profession.'

Coryell works at the VEC (Vehicle Engineering Center) in Warren as part of GM's Materials/Corrosion/Fluids Engineering & Labs group, where he specializes in Body Structure (Uppers and Lowers), Bumper Systems, Roof Rack & Cargo Management Metals.

Look for Coryell at the March 14 ASM banquet in Farmington Hills.

There will be a 5:45 p.m. social hour, followed by 6:30 p.m. sit-down dinner and then the formal program, including McElroy's auto industry

vide extra corrosion resistance to ensure that the Regal Turbo meets GM's stringent durability requirements, GM officials say.

In the past, improving power output and reducing fuel consumption and emissions were often conflicting goals. By delivering fuel directly to the combustion chamber, says GM, the high-pressure injectors can now provide a more precise mixture for optimum combustion.

Turbochargers use the energy in the hot exhaust gas flow to drive a compressor that forces more air into the combustion chamber for on-demand power delivery.

The twin-scroll turbocharger on the Ecotec engine provides two inlet paths to the turbine to maximize the kinetic and thermal energy delivered to the turbine.

"Lag and reduced vehicle launch response is one of the age-old concerns with previous turbo engines," said Ecotec Chief Engineer Mike Anderson.

Ross House Hosts Local Author

There will be a lecture entitled "Reimagining Detroit" with local author John Gallagher on Wednesday, March 2 at 7:30 p.m. at the McFadden-Ross House, 915 Brady Street, in Dearborn.

Local author and journalist Gallagher will be discussing his recent book, "Reimagining Detroit: Opportunities for redefining an American City."

Experts estimate that perhaps 40 square miles (out of 138 total) are vacant, about one-third of the city's total land space, due to urban flight, deterioration and other well-known economic factors.

Gallagher spent a year researching Detroit and it's latter-day "open spaces" issue and he wrote a book suggesting how Detroit might reinvent itself, in spite of its myriad problems.

The theme is how to make Detroit leaner, greener and economically more self-sufficient than its current civic and business model.

Gallagher's lecture and book talk is presented as a community service by the Dearborn Historical Society.

For more details, contact the McFadden-Ross House at (313) 565-3000.