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Baltimore Section Newsletter

Aaron Spak, Newsletter Editor

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February's Double Whammy: Bechtel Power Plant and Allison Transmissions

The demand for clean and efficient energy has never been greater and there is a growing interest in how power will be generated and distributed in the future. We have been trying to put a special program together to cover this subject, and have finally achieved our goal. Unfortunately we were not able to put a program together for January, but will be offering our first Saturday presentation next month when Bechtel Power will be our host for the February 2003 meeting of the Baltimore Section of the ASME.

The meeting will be held on **Saturday, February 22nd 2003** from **9:30 AM to 1:00 PM**, at Bechtel Park in Frederick, Maryland. The program will include an overview of current and future power plant technologies and a tour of the Dickerson Generating Station.

Dickerson Generating Station is located on the Potomac River in Upper Montgomery County near Dickerson, Maryland. The Power Plant is owned and operated by Mirant Mid-Atlantic and consists of three (3) Coal Fired Units: Units 1,2 and 3. Unit 3 was designed and constructed by Bechtel Corporation and brought on line in 1962. The tour will give a general overview of the power plant steam cycle.

The participants must wear long pants and closed toe, flat shoes. No photographs are allowed. A roster must be submitted by **February 12, 2003**. The group size will be limited to 20 people. We will give first preference to ASME members and Student members. If we do not reach the 20-member group by February 10th we will open the roster to friends and family over the age of 15. Members interested in attending are encouraged to submit their names to Greg Harris gcharris@us.ibm.com (preferred) or call at 410 215 967 as soon as possible. Members donation is $5.00, Non-Members is $7.00, proceeds support the ASME Scholarship fund.

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Come join us for a tour of one of General Motors most important suppliers ALLISON TRANSMISSION PLANT in White Marsh Maryland on **February 13th** from **2:30 to 4:00 PM**. We made this an "early tour" so that you could see the plant in action.

Indianapolis was 15 years into the 20th century on September 14, 1915, when James A. Allison founded the Indianapolis Speedway Team Company - the forerunner of today's Allison Transmission Division of General Motors. From those beginnings, the company has become the world leader in the design, manufacture and sales of automatic transmissions for trucks, buses, off-road and military vehicles.

As we enter the 21st century, Allison Transmission retains its rich legacy of technological innovation, product quality and employee dedication. These qualities have made the company a world leader throughout its more than 85 year history.

Allison Transmission Division of General Motors is the world leader in the design, manufacture and sales of commercial-duty automatic transmissions, hybrid propulsion systems, and related parts and services for on-highway trucks and buses, off-highway equipment and military vehicles. Having literally invented the category, today the company continues to dominate with an 80% market share of all medium- and heavy-duty commercial fully automatic transmissions produced.

The division is headquartered in Indianapolis, Indiana, and has five international regional offices. Allison Transmission also has a presence in more than 80 countries, which includes over 1,500 distributors and dealers.

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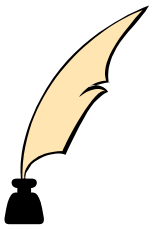
Chairman's Corner

By

Michael D. White



Engineering - The Indispensable Profession

Break out the noisemakers, it's time to celebrate! National Engineers Week is February 16-22, and you all deserve a big round of applause, for the importance of engineers in improving the lot of mankind cannot be underestimated.

Engineers develop practical applications of the scientific knowledge, which separates humanity from the beasts. Throughout history, as mankind has made basic scientific discoveries and early engineers learned to put these finding to use, the difficulty of daily life has eased a bit. A farmer who 5000 years ago worked to improve the performance of his hoe has much in common with the design engineers at John Deere today. While these early problem-solvers weren't given the title of "engineer", they performed tasks such as designing, analyzing, and fabricating useful products, all of which would be considered a part of engineering today. The rise of engineering into a formal profession in the past few centuries has quickened the pace of change tremendously, completing the transition of the condition of man from a struggle for survival to a state of relative leisure. Instead of spending all of our time searching for basic necessities, people today have hours each day to use pursuing happiness and creating meaning within our lives.

Engineering has helped form a new model of civilization in the past three centuries. The enormous labor savings from machinery has shifted the developed world from an agrarian lifestyle to an industrial one, and changed the important human attribute from physical strength to mental strength. In the process, we have sufficiently solved life's basic problems of food, shelter, and health so that these issues are no longer our primary concern. A "hard" day for many Americans consists of meetings all day at the office, followed by ferrying kids to and from sports or scouts or music lessons, with a bit of TV to cap it off – a far cry from the life of an average person 400 years ago, who would be lucky to have decent food and shelter while surviving any number of plagues and diseases.

So what of true importance is left for engineers to do now? Sadly, many of the world's inhabitants lead lives barely touched by the tremendous advances of science and engineering. 2 billion people live on less than $2 per day, and starvation and disease are constant threats in too many areas of the world. We must find ways to pull the Third World into our life of ease. Engineers can help by improving the technology, equipment, and processes needed to increase the availability and delivery of basic needs, such as fresh water, food, medicine, and energy. Improving man's ability to harness our natural resources without destroying the planet is essential to raising living standards for underdeveloped countries and sustaining these new levels in the long term. The problem-solving inherent in engineering can be applied at the individual, local, and national levels.

Engineers in nearly any field can help in less direct ways, as any activity which reduces the cost of a good or service which makes life easier will help these products filter into poor countries. The tremendous cost improvements recently in the computer industry, for example, will enable Third World countries to acquire more of them, and they will reap the benefits of this technology in industry and government. And perhaps most importantly, developed nations must strive to share our understanding of science and engineering with the citizens of the Third World, so that these societies can establish an internal foundation on which to build their countries. Foreign aid, technology grants, scholarships, teacher exchanges, work projects, and numerous other direct and indirect methods of diffusing knowledge must continue.

So this year, don't forget to celebrate Engineers Week and all that engineering has accomplished. But don't be content to rest on your laurels, either. The world still desperately needs engineers.

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Bechtel, cont. from Page 1

A waiver will be required to be filled out prior to the tour of the plant.

Directions to Bechtel Park From Baltimore area

- 70 West
- 270 South
- Take Exit 31B, Route 85, South
- Stay in right-hand lane
- Turn right at the light on Crestwood Boulevard (Amoco on your left)
- Continue for about ¼ mile and turn right on to Westview Drive building address 5265/75
- Take the second Bechtel entrance off of Westview Drive. Building1 (BP1)is directly in front of you (center of 3 buildings)

Visitor parking is in front of Building 1, 5265

6th Annual State of Technology in Maryland Summit

8AM – 4PM Monday, February 10
Annapolis Marriott Hotel

Join business leaders, academia, and state and federal policymakers to check the pulse of the technology environment in Maryland, gain a head start on emerging technologies, and learn about new opportunities through public-private partnerships.

Feature Session: Special Issue 2003 – CEO Roundtable on Homeland Security

Visit www.asme.org/gric for more details!

Allison, cont. from Page 1

This support network provides service and technical support worldwide to the division's 250 OEMs, and the many fleet owners and operators, and end users. Allison Transmission has a workforce of over 4,000 salaried and hourly employees.

Parallel hybrid technologies developed by the Allison Transmission Division of General Motors (GM) are delivering lower emissions and improved fuel economy to a range of transit bus applications, including 40-foot standard and low-floor buses and 60-foot articulated buses and suburban coaches. An early design generation of Allison's hybrid electric technology, the E^{S}System series hybrid system, currently powers demonstrator buses for the Orange County Transportation Authority (OCTA) in Orange County, California and Tri-Met Transit system in Portland, Oregon.

Please contact Greg Harris to reserve your spot for what promises to be a very popular tour. We would like to limit the age group to over 16 for this one because of insurance, and the limited size of the group. You can contact him by email at gcharris@us.ibm.com, or call 410 215 9967 before **Friday, Feb 7th**. ASME Members donation $5.00, non-Members $7.00. Proceeds support our scholarship fund.

Driving Directions:

Take exit 67 off of RT 95 in White Marsh Maryland and travel East on Rt 43. Take the first exit off Rt. 43 to Philadelphia Rd. (RT 7). The Allison Plant entrance is directly off that exit. Follow the signs for Visitors Parking.

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2002-2003 ASME Baltimore Section Program Schedule

The program schedule for the year is still being firmed up and we don't yet have confirmations from all our hosts, but here are the scheduled meeting dates.

Feb 10, 2003	MD Technology Summit, Annapolis Marriott Hotel
Feb 13, 2003	Allison Transmission Tour, White Marsh
Feb 22, 2003	Bechtel Power Plant Tour, Frederick
March 13, 2003	Christie Lecture, JHU
April 17, 2003	Honors and Awards, ESB
May 15, 2003	Tour TBD

Executive Committee Meetings

All members are welcome and encouraged to attend the Executive Committee meetings, usually held on the first Monday of each month at UMBC.

- Monday, February 3rd at 7:00 pm
- Monday, March 3rd at 7:00pm

Meetings will be held in the Engineering & Computer Science Building, UMBC, in the 3rd Floor Engineering Conference Room. Call Section Secretary Tom Spangenberg at (410) 363-4400 x155 for details.

Directions To UMBC: *Note – Parking costs $.50, quarters only*
Take I-95 to exit 47, which is I-195/MD Rt. 166. Follow the signs to UMBC, which will lead you to bear right. Once on the campus, turn left at the stop sign onto Hilltop Circle. Turn right at the stoplight, and continue going straight until you reach the faculty parking lot. Pay $.50 and park anywhere in the lot. The Engineering & Computer Science building is the rightmost building bordering the parking lot.❖