



Theme: *Sustainability*

Date: May 18, 2011

Schedule:

- 5:00 PM Social Networking
- 6:30 PM Dinner (\$27)
- 7:30 PM Presentation

Location:

Quality Inn
 531 Route 38 West
 Maple Shade,
 NJ 08052
 (856) 235-6400

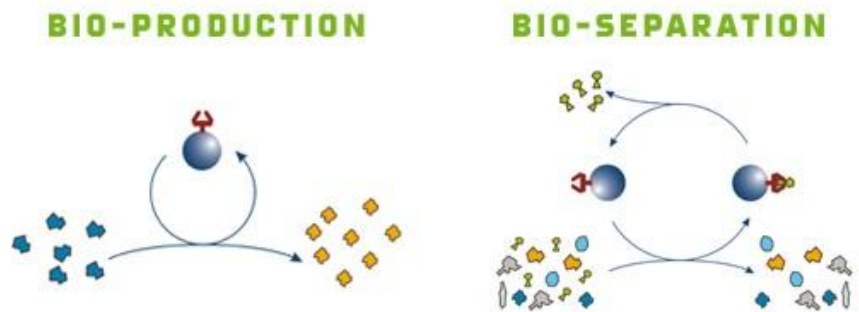
RSVP: Tom Masapollo at
Tmasapollo@comcast.net
By: Friday, May 11, 2011

- *Everyone attending, including Board of Directors, needs to RSVP*
- *Thank You*

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May Technical Meeting

Biodiesel Production from Sewage Sludges



Biodiesel is a fuel comprised of monoalkyl esters traditionally derived from vegetable oils or animal fats. There is currently an unprecedented increase in interest and demand for biodiesel and other fuels derived from renewable biomass.

However, pure vegetable or seed oils are expensive and constitute between 70% and 85% of the overall biodiesel production cost. Municipal sewage sludge is gaining traction in the U.S. and around the world as a lipid feedstock for biodiesel production. It is plentiful and consists of significant concentrations of lipids that can make production of biodiesel from sludge profitable. However, there are challenges to be faced by biodiesel production from waste sludge.

These are some of the issues facing us in the ever-demanding world from an energy perspective

We are pleased to have **Dr. David Kargbo** to be our May Speaker. *Dr. Kargbo is a Senior Soil Scientist with the USEPA in Philadelphia and an Adjunct Professor at Temple University's Department of Civil and Environmental Engineering*

We look forward to having you joining us for an evening of engaging conversation on renewable energy.

PRESIDENT'S MESSAGE

'It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness. . . ' thus began A Tale of Two Cities, by Charles Dickens in 1859. This description seems as relevant today as ever . . .

We are beginning to see job data in the US slowly going to the right direction, at the same time, look outward from a global perspective . . . Portugal is looking to the European Union for a bailout, at about \$150+ billion. Recently the *Economist* magazine described that Ireland's banks would fundamentally be all nationalized at some point, as their bail out getting close to over \$70 billion. Greece went through similar financial 'maneuvering' last summer, and Spain might not be too far behind. Someone coined the acronym 'PIGS' - a grouping by international economic press that refers to the faltering and indebted economies of Portugal, Italy (should be substituted by Ireland now), Greece, and Spain. Some news and economic organizations have limited or banned use of this acronym due to perceived offensive connotations.

I was in New York last month to attend a conference in global trade and economics, and one of the speakers described that we and the rest of the globe were living through a deflation era over the past 30 years. 1979 Mainland China began to liberalize trade policies, and fundamentally benefitted the globe with her inexpensive and abundant source of labor. However, going forward, we could potentially be looking into a 30-year inflation phase, due to rising labor wages in China, and developing nations chasing limited resources.

Cotton, a commodity, is now \$2 a pound. A year ago, it was \$1 per pound, 2 years ago at about 60 to 70 cents a pound.



We are beginning to cultivate more cotton now in Texas and other cotton growing states, however, the growing demand would be something that we need to manage. From my perspective, continue to

accelerate our innovation path should be one of many approaches to solve this challenge.

I welcome your thoughts on this . . .

Best, Tom

On another note . . . Our Director of Programs, **Tom Masapollo** has announced his intention to step down in June, from the Board after 35 years of continuous service, and we will definitely miss his experience and dedication to our Professional Chapter. He has managed to compile a sterling record of great technical dinner programs for many years, as well as maintaining a vast network of professional contacts. We will miss him, and sincerely wish him well as he starts a new phase of professional growth, and intellectual engagement.

TREASURER'S REPORT

Mr. Richard T. Huysie reports a Treasury Balance of \$5,063.80 as of April, 2011 for the IIE South Jersey Delaware Valley Professional Chapter No. 132.

MEMBERSHIP REPORT

As of April 2011, the SJDV Professional Chapter has 157 Members. Don't forget to renew your membership. . . .



'If you want to go quickly, go alone. If you want to go far, go together' . . African proverb

CALENDAR – MAY 2011

Key IIE dates:

- May 3 – IIE Board of Directors (BOD) Meeting
- May 18 – IIE Technical Dinner Meeting

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3 BOD	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18 Tech Din Mtg	19	20	21
22	23	24	25	26	27	28
29	30	31				

Officers & Directors
2011 IIE South Jersey Delaware Valley
Professional Chapter No. 132

President & Newsletter Editor - Tom Fung
tfung@alumni.upenn.edu, fung@aesop.rutgers.edu, funct@PhilaU.edu
(C) 856-362-7238

Vice-President - Fred Rexon
fredrexon@precisionautomationinc.com
(W) 856-428-7400

Secretary - Bob Siebeneicher, CMfgE, CSI, CFOM, F.IIE
Director of Career Development, Constitution & By-laws, & Archivist
bobsiebeneicher2@aol.com
(C) 609-352-1957, (H) 856-235-9446

Treasurer - Rick Huysie
(H) 856-931-7352

IIE Northeast Region Vice President & Director – Kevin Drevik
kdrevik@lge.com
(W) 732-605-0385, x 245

Director of CAR & Engineer's Week - John McGowan, PE
john.p.mcgowan@lmco.com
(H) 856-722-4593

Director of Programs - Tom Masapollo, CMfgT, CSI
tmassapollo@comcast.net, tomm@formation.com
(W) 856-380-2918

Director of Membership & Education – Joe Polidoro
polidoro_joe@yahoo.com
(C) 484-716-1860

Director of Website & Web Master – Paul Siebeneicher
paulsehnen@yahoo.com
(C) 856-630-5564

Director of Employment Assistance Network – Kevin Wiker
kwik12@comcast.net
(W) 215-781-2789

Director of Community Affairs, & PR – Michael Reyman
mreyman@mac.com

Director & Master at Arms – Frank DeFelice
fd744@aol.com

Director at Large – Marvin Chin
Marven_Chin@medco.com
(W) 609-880-2172

Director at Large - Hardik Patel
Hardik.Patel@boeing.com

Director at Large – Hardik Shah
hshah@interlinebrands.com

Director at Large – Gene Wrotny
unlvnellis@yahoo.com

Upcoming Meeting

We will not have any Technical Dinner Meeting this summer, starting in June, but will resume in September. Over the summer, we would be conducting our strategic planning for next year. Please contact a board member if you have any suggestions for a future meeting.

May Technical Meeting

Dr. David Kargbo is a Senior Soil Scientist with the USEPA in Philadelphia and an Adjunct Professor at Temple University's Department of Civil and Environmental Engineering.

Dr. Kargbo has received numerous professional achievement awards including the 2003 USEPA Bronze Medal for outstanding contribution to the research, technology transfer, outreach, and management of the Hazardous Substance Research Program and the highly coveted United Nations Fellowship Award.



He is a Fellow of the Institute of Environmental Studies at the University of Pennsylvania and a member of editorial boards of prestigious peer-reviewed journals. Dr. Kargbo is the author of numerous peer-reviewed journal publications and book chapters in the fields of resource extraction, sustainable energy, waste management, and implications/applications of nanotechnology.

Dr. Kargbo's work has had huge societal impact such as his recent article on producing cost-effective biodiesel from sewage sludges that was featured on National Public Radio's Morning Edition and a podcast by the American Chemical Society's Global Challenges/Chemistry Solutions (GC/CS) program. GC/CS identifies the world's most pressing sustainability challenges, and explores the solutions emerging from chemistry. He has been invited to numerous speaking engagements in environmental engineering and science in the US and abroad.

Career Development

OFFER A HANDSHAKE TO CHINA – IT’S AN OPPORTUNITY!

We professional engineers in the United States can write the epitaph for U.S. Manufacturing and it does not have to read, **“Here lays U.S. Manufacturing, once for the many, but demised by the few.”** The CEO’s “all for one” focus on short-term gains is not the basis for manufacturing sustainability. It is the engineer’s “one for all” focus on the development and advancement of products and services that will sustain our manufacturing base. We improve the world’s quality and standard of living through the most efficient consumption of resources while minimizing waste through sustainable technologies today and tomorrow.

My first memory of China was what my grandfather shared with me when I was just ten years old. Born on October 2, 1885 in northern Germany, Paul Robert Siebeneicher, I came to America on a coal-cattle bulk cargo ship when he was 15 years old. He arrived in Galveston, Texas in 1901, just after the deadliest natural disaster ever to strike the United States. The Galveston Hurricane of 1900 caused the death of 6,000 to 12,000 people. Half of the bodies were swept out to sea and never found. Penny less, it took my grandfather three years to work off the \$35 cost of passage on his uncle’s farm in San Antonio, Texas. At 19, my grandfather moved to Galveston in 1904 and was one of the workmen to build the Galveston seawall. Galveston was still being rebuilt 4 years after the Great Galveston Hurricane.

My grandfather’s early trials and tribulations gave him a unique perspective on global affairs. It was in the early 1950’s during much turmoil that the nation’s newspaper headlines warned of war with Communist China. The United States was supporting South Korea with tens of thousands of troops on the ground and international incidents were common with sea and air incursions that made the headlines. Now almost 70 and retired, my grandfather read me the front page headline that stated, **“China’s Population Reaches One Billion.”** He commented that China had five times the population of America and asked me what that meant to me. I responded that our U.S. Navy would never let the China military reach our shores. He responded with a long stare and stern face and said, **“China doesn’t need a navy or ships to reach America. China has so many people that when it decides to come to America, it will cross the Pacific Ocean from the human bridge it will form on the backs of millions of Chinese.”** Thinking back on what my grandfather was trying to communicate to me, I now know the wisdom an old man was trying to share with his grandson. I had tried to visualize how millions of Chinese could form a human bridge in thousands of miles of ocean with depths of thousands of feet. What my grandfather knew in the 1950’s

was that a nation with a billion people could do just about anything it wants to.

Get to Know China – It’s Not an Option. *Industry Week’s April 2011* article by George Brown and David Hartman reminds me of my grandfather’s wisdom. How can one ignore the **“rapid growth of the Chinese economy, accompanied by the higher incomes of Chinese consumers.”** While you cannot ignore some of the bad products coming out of China, as the lead contaminated toys and sheetrock laced with deadly chemicals, these examples are not representative of the majority of quality products China is exporting. Cass and I recently purchased a new patio furniture set that came from China, assembly required. The *Jaclyn Smith Today Strathmore Patio Furniture* exceeded our expectations. How could this patio furniture be so beautiful and comfortable and not be damaged coming from across the world. I could not find any quality defects whatsoever. My latest Nike Air tennis shoes were purchased at DSW in Mount Laurel. I wore them yesterday to North Wildwood, New Jersey. These shoes have to be the most comfortable tennis shoes I have worn in decades, even with my swollen ankle from the bacterial infection still being medicated on my left leg. I dare you to find any defects in these shoes or match the comfort they provide.

If your strategic planning, whether for business or pleasure, does not include China, your opportunities are limited and your competition unknown. This is not wise in today’s global market. The fact that many Chinese companies are backed by their government, advantages most American companies do not have here, does not diminish the quality of products coming out of China. The growth of engineering and science professions in China will support their continuing improvement in Chinese manufacturing quality and product sustainability. These professionals still only earn about 25% of the American engineers and scientists. The Georgia Tech “High-Tech Indicators” that takes into account the (1) technological competitiveness, (2) socioeconomic infrastructure, (3) technological infrastructure and (4) productive capacity appears to be the score that matters. **“These indicators in 2007 indicated that China is leading the world with a score of 82.8 compared with the 76.1 for the United States.”** All other developed countries are even lower.

China has emerged as an industrial force that no one should ignore. It is in the best interest of the world’s economy that all engineers and scientist everywhere embrace **Design Engineering through Sustainability** and practice continuing improvement in all their work. Do you?

*The IE is the “Change Agent” of the future! Make Your Career Happen!
Educate, Proliferate . . . or Vanish! ©*

Paul Robert Siebeneicher, II, CMfgE, CSL, CFOM, F.IIE

Director of Career Development – IIESJDVPC
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Industrial Engineers

Ridley Park, PA

<https://jobs.boeing.com/JobSeeker/JobView?reqcode=11-1007452>

Requisition Number: 11-1007452

Position Description- Applies Industrial Engineering concepts, techniques, analysis and decision tools under general / limited supervision to promote and assist in implementing changes in manufacturing, engineering and service operations. Assists in developing models, data bases and spreadsheets to analyze data (e.g., statistics, operations research, engineering economics), and provides summary analysis and metrics for consultation to customers (e.g., management, departments, suppliers). Applies general industrial engineering techniques and concepts to product and process design teams throughout all phases of product lifecycle, resulting in a robust product design and work statement that meets program requirements. Assist in research, design, development, improvement and implementation of processes to enhance schedule performance, lower cost, and improve quality, through the application of Lean and other Industrial Engineering concepts for large scale systems integration and asset utilization. Under general supervision, manages, defines, negotiates, and controls the scope, cost, and timing of projects, and performs risk analysis using project management tools (e.g., work break-down structure, precedence network, resource allocation). Provides support to project completion. Utilizes engineering methods (e.g., mathematical models, simulation, statistics) to support the development of optimal process designs and efficient utilization of resources (e.g., facilities, personnel, materials, equipment) in the creation and validation of products. Under general / limited direction, analyzes and designs value stream, including capability, capacity (e.g., make/buy, supplier selection, risk analysis, supplier performance), throughput, work flow and logistics (e.g., critical path, lead-time, transportation, factory layout).

Typical Education/Experience

Level 2 - Degree and typical experience in engineering classification: Bachelor's and 2 or more years' experience or a Master's degree with experience. Bachelor, Master or Doctorate of Science degree from an accredited course of study, in engineering, computer science, mathematics, physics or chemistry. ABET is the preferred, although not required, accreditation standard. Level 3 - Degree and typical experience in engineering classification: Bachelor's and 5 or more years' experience, Master's degree with 3 or more years'

experience or PhD degree with experience. Bachelor, Master or Doctorate of Science degree from an accredited course of study, in engineering, computer science, mathematics, physics or chemistry. ABET is the preferred, although not required, accreditation standard.

To apply: <https://jobs.boeing.com/JobSeeker/Login>

VWR International, LLC.

Industrial Engineer

Location City: Bridgeport, NJ

VWR International, LLC, is a global distributor of laboratory supplies and services whose reach and range focus on customer value. Headquartered in Radnor, PA, with worldwide sales in excess of \$3.6 billion in 2010.

Position Profile: Responsible for administering common DC processes and driving continuous performance improvement. Designs multifaceted supply chain solutions based on an understanding of distribution network strategy, transportation strategy, manufacturing strategy and inventory deployment strategy.

JOB REQUIREMENTS - Ensures all distribution system functionality is configured to optimize performance (e.g., warehouse management, labor management, slotting and reporting applications).

- Analyzes contractual commitments, customer specifications, design changes and other data to develop design solutions.
- Performs special research or technical studies critical to logistic support functions.
- Performs cost / benefit tradeoff analysis and develop ROI business cases for recommended projects involving process, system or technology change.
- Assists with developing / presenting training materials and classes for distribution processes.
- Determines feasibility of projects factoring costs, available space, schedule limitations, company goals, technical requirements and economic factors
- Develops and implements project activities plans and timelines, coordinate subcontractors, facility management and field service personnel, and resolves problems in area of logistics to ensure meeting of contractual commitments.

Desired Experience

- Experience documenting design methodologies to create logistics solutions and responses to RFPs.
- Able to use computer-assisted engineering and design software & equipment : AutoCAD, MS-Project, & Visio.

EDUCATION: College degree preferred. Will consider equivalent of 8 years experience

Resume Submissions - To VWR

From Third Party Recruitment Firms Will Not Be Considered

CAR Article



Aaron Magness of Zappos at Drexel



The Design & Merchandising Program in Drexel University's Antoinette Westphal College of Media Arts & Design hosted the 2011 Distinguished Speaker **Aaron Magness**, senior director of brand marketing and business development at Zappos Development, Inc. Magness has worked in retail for more than 10 years with brands that put a focus on customer service. He joined Zappos in 2008 and oversees brand marketing, public relations and video/blogs as well as business development. The presentation was held at the Paul Peck Alumni Center on Monday April 11, 2011.

Magness (pictured at right, on the left of Tom Fung) focused on the power of the customer in any company's success. Social media has put the customer squarely in control, making it impossible for a company to control the customer experience. Through discussion and presentation of everyday experiences at Zappos, Magness demonstrated the greater role of customers in shaping their own shopping and purchasing experiences, and creating a relationship with brands.

Zappos is the largest player in the online shoe market today, with sales of more than \$1 billion annually (including accessories and clothing). The company has fiercely loyal customers who brag about how easy it is to use the company's website, how friendly its phone customer service reps are, and how quickly they deliver product.

Tom Fung took a group of his students in Global Supply Chain Management from Philadelphia University to attend



Aaron's presentation, and it was a successful field trip.

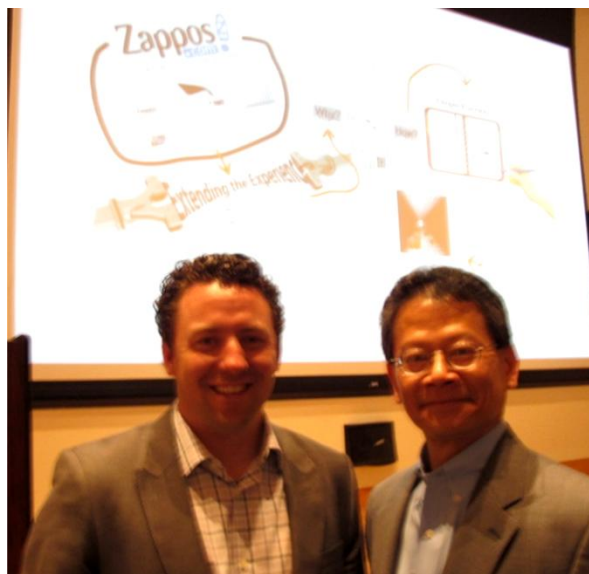
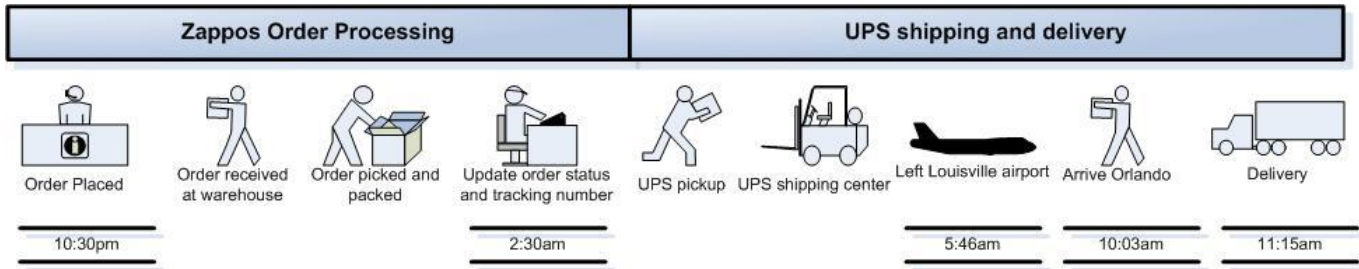
Antoinette P. Westphal
Class of 1959, Honorary '02



Drexel University's Antoinette Westphal College of Media Arts & Design is named in honor of Antoinette Westphal, a graduate of the College.

Mrs. Westphal, a Fashion Design major, was an enthusiastic member of the Drexel student body. She was captain of the field hockey and lacrosse teams, a member of the Sigma Sigma Sigma sorority, president of the Pan-Hellenic Council and served as Court Jester - the gossip columnist for The Triangle, the University's student newspaper.

Mrs. Westphal was one of the first employees of Vertex, Inc., which was founded by her husband Ray in the 1970s. Vertex is an industry leader in tax compliance software and the company was named "one of the 100



Best Places to Work in Pennsylvania" by the Pennsylvania Department of Labor. Upon her retirement from Vertex, Mrs. Westphal opened a day spa, which received several Philadelphia Magazine "Best of Philly" awards and was a Main Line

Chamber of Commerce Small Business of the Year honoree.

Mrs. Westphal, along with her husband, was one of Drexel University's most loyal and generous benefactors.



Travel Journal from the Newsletter Editor

I spent 2 weeks in China, to accompany a team of 17 students in a Short Study Abroad Program over March spring break. Our focus was on global supply chain in textile and the fashion industry.

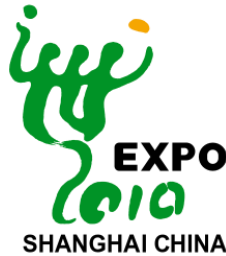
We started our trip at the heart of Shanghai, and toured half a dozen textile factories, as well as enabling students to explore the cultural diversity that this Asian finance center has to offer.

Secretary of State Hillary Clinton made numerous visits to Shanghai last year, on a variety of trade talks and diplomatic discussions, and opening up the American Pavilion at the 2010 Shanghai Expo. This World's Fair established a record of over 73 million visitors.

<http://www.nytimes.com/2010/11/03/world/asia/03shanghai.html>

The last record on attendance was at Japan in 1970, with 64 million and their theme was 'Progress and Harmony for Mankind'. China's Gross Domestic Products also has passed Japan's in 2010, with \$5.9 trillion vs. Japan's \$5.5; the US is still leading the world at \$14.8 trillion.

While hanging out in Hong Kong, I learned that a pair of Boeing 747 would be packed full of Apple products



(manufactured by Foxconn in Shenzhen) departing for the west. Apple has followed the fashion industry paradigm: designed by the west, and produced in the east. American innovations and Asian supply chain, what a global and connected economy that we now live in.

Canon recently was quoted in a Shanghai newspaper that they expect to gain \$10 billion in new revenue just in China alone. Comparing the average Chinese consumer with that of Japan, one might argue they are not as advanced in the techno scale, but not for long.

Last summer I purchased a Canon G11, a pocket-sized low-end quasi-professional digital camera for \$500. I did not want to carry a SLR (single lens reflex) style as it is too bulky for me to carry all the time with me.

Looking at the arithmetic: \$500 per camera x 20 million new customers = \$10 billion in sales. Out of a population of 1.3 billion, a middle class of some 350 million is being forecasted for the near term. To get 20 out of 350 million is a 5.7% hit rate. I think Canon is a bit conservative; iPad's revenue reached \$9.6 billion last year.



iPads are now so common in certain trendy sections in Shanghai, that one could easily think that you were walking through downtown Manhattan, Chicago, or San Francisco. *iPhone is now 50% of Apple's \$64 billion global annual revenue. . .*

what's gonna happen to the landline business . . .

Bon voyage, my friends . .
Tom Fung

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Steve Cirillo – 215-952-1505	–	Joe Cirillo – 856-969-7033



Tom Fung
Newsletter Editor
South Jersey Delaware Valley
Professional Chapter No. 132
IIE, Incorporated
c/o 450 East Broad Street
Bridgeton, NJ 08302



Prudential

Mike Reyman
REALTOR®

Fox & Roach, REALTORS®

Media Home Marketing Center
601 E. Baltimore Pike, Media, PA 19063
Bus 610 566-3000 Direct 610 892-5724
Fax 610 566-8664 Cell 908 967-8170
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In support of our **SOUTH JERSEY DELAWARE VALLEY PROFESSIONAL CHAPTER OF THE INSTITUTE OF INDUSTRIAL ENGINEERS**, 5% of my commission on a purchase or sale of a home (where a member of IIE made the first contact with me) will be donated back to the chapter at closing.

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