

AICHE DVS Kick Off Tour September 25, 2007 K'nex Plant Tour – Hatfield, PA

K'NEX Industries, Inc. is a privately held company, with the headquarters and manufacturing facility located in Hatfield, Pennsylvania. Internationally, K'NEX products are distributed by Hasbro, one of the world's leading toy manufacturers and distributors.

K'NEX began one evening when Joel Glickman was playing with straws. That's right... straws! While sitting at a crowded, noisy wedding Joel began tinkering with some straws and thinking about the possibilities. This dabbling, followed by some innovative product engineering, led to the very popular Rod and Connector building system now available throughout the world. Today, K'NEX is the number one construction toy company in the non-brick category and getting bigger every day!

We will tour the facility at the plastics manufacturing division of K'NEX Brands, the Rodon Group, in Hatfield, PA. The Rodon Group designs, tools and manufactures injection molded components for industrial applications and other applications such as K'NEX. The K'NEX folks have assured us that there will be toy samples on display.

We will enjoy dinner, fellowship and networking at Finn McCool's Irish Pub.



“The World’s Most Creative Construction Toy”

Meeting Date: September 25, 2007

Tour Location:
K'NEX
2700 Sterling Dr - Hatfield, Pa.

Dinner Location:
Finn McCools
3120 Penn St. - Hatfield, Pa.

Times:
Tour: 4pm
Dinner: 6pm

Ticket Price:
\$20 Members & \$10 Students

RSVP
On-line at <http://www.aiche-philadelphia.org/events/events.html>
or Chuck Clerecuzio
charles.clerecuzio@amec.com or
(610) 828-8100

Please provide name (spelling), number attending, company affiliation, phone and fax number.

Chair's Chat

A Glance Backwards
and a Look Forward

By Charles A. Clerecuzio, P.E.

Greetings. I hope everyone has had a safe and enjoyable summer. As we enter another program year for the Delaware Valley Section, I would like to begin by thanking all the members who assisted with developing the programs for last year. Special thanks go out to Scott Smith, outgoing Chair for his hard work, dedication and innovation. Scott expanded the breadth of our programs, both topically as well as geographically. Under his guidance, the section also held our first Golf Outing at the Downingtown Country Club, which was a great success in both attendance and sponsorship, which we plan to build on in upcoming years. Scott also improved communications with our Section by implementing Constant Contact, which quickly became our bedrock communications tool. He also implemented the PayPal service to make it easier for members to register and pay for our programs. Both of these innovations were a great success.

Next I would like to welcome this year's officers and Board members, especially our Vice Chair Zenaida Gephardt of Rowan University. We have some new people getting involved this year which will help to further invigorate our programs and meetings. As we move into the 2007 – 2008 year, we will strive to continue to build on the success of

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Chair's Chat

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previous years and continue to grow and innovate our programs. In this newsletter, you will see a proposed list of this year's programs, but feel free to contact any of the Board members with suggestions or stop in at one of our Planning Meeting, which are held the second Tuesday of each month at Villanova.

This year will be expanding our educational offerings. Our first step is the introduction of a Spring Educational Program which will complement our slate of plant tours and dinner meetings. We are actively seeking topics of interest for this program as well as other suggestions to increase our educational and training content. The focus of this spring program will be targeted towards the recent graduate and the student member. We have also relaunched our Tech Tips starting with this newsletter. Our first contribution is from Eric Sipe, who has contributed previous Tech Tips and will be coordinating this monthly column. If you have suggestions or would like to contribute, please contact Eric or any of the Board members.

We will still be hosting our traditional major events such as the CEO night and the Union League in January and the Student Awards Banquet in April and planning to add the June Golf Outing to our annual events. Finally, we will continue to reach out to other area societies, such as SWE, the Chemical Heritage Foundation and the Wilmington AIChE section to host joint events. I encourage anyone to get involved in planning and hosting our events. This is your Section and you will meet some great people and have a lot of fun.

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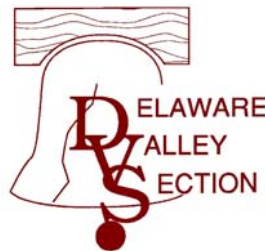
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Tech Tip: The Cost of Not Implementing All Steps of the Design Sequence of a Project

Your company inherits a project that was fully designed by another company but the owner wants to make a few tweaks to the design and build the facility. All you have to do is refine and implement procurement and construction based on another company's design work. No problem; this project should be a piece of cake. The hard work has already been completed.

Alternatively, you get assigned to a project to replace a critical piece of equipment that has failed on several occasions recently causing the loss of nearly a million dollars worth of product. The machine could fail again at any moment causing an additional loss of product and money. Luckily your company has a replacement centrifuge in the warehouse that can be installed after it is checked out by the original equipment manufacturer. Again, this project is going to be a piece of cake because the major equipment is already selected and available for installation within weeks. All you need to do is oversee the design of the systems that will be needed to support this new machine.

Each of these scenarios turned out to be anything but easy to execute for a variety of reasons but one common thread was not fully implementing each step of the design sequence prior to moving on to the next step. This is not an uncommon practice in industry but it is done at the project manager's peril when it is done.

In the case of the facility project inherited from the other design firm; equipment procurement and detailed design drawings were finalized on an aggressive schedule without having the benefit of having gone through preliminary or detailed design activities. Additionally, these activities were occurring as efforts were beginning on fitting out the existing building shell with architectural, HVAC, and utility systems (even though in some cases major equipment hadn't been designed or even procured). The result of this rush to get the facility built and running was an overbudget and late project that led to major disagreements between the client company and the designer/builder of the facility. It is easy to place the blame on the facility designer/builder but this was a project doomed to difficulties and disappointment because of unrealistic expectations and inadequate understanding of proper project design sequencing and coordination on the part of both companies. Equipment can't be adequately designed and specified until the process is adequately understood. Further, a facility can't be properly designed until all of the major equipment is specified, procured, and designed. Finally, a facility can't be successfully built; no matter how soon you want it or need it, until it is completely thought out, designed, and detailed. You may think you can use your creativity, special prowess and extra effort to cheat the system but you are setting yourself up for failure in the form of missed deadlines, cost overruns and a dark spot on your reputation. So when you see that design steps aren't being properly completed speak up to protect your client, your company and yourself.

In the second scenario it turned out that the machine that was identified as a suitable replacement for the risky machine was actually not suitable and now an alternate machine had to be identified and procured. At this point a significant portion of the allocated engineering budget had already been expended not to mention the 2-3 months of design time on preliminary engineering that was lost. The project is now behind schedule and saddled with approximately \$100 K of useless design work. This piece of cake project has also unknowingly become a project manager's nightmare. No replacement machine, three months of preliminary engineering and design lost, and the plant is still running on borrowed time because of the risky machine. Management still wants the machine replaced as soon as possible. Welcome to fire fighting central. Find a suitable machine, design its installation into the facility, install it as quickly as possible in a tight, congested, and active area of the plant, validate it, and start it up on a shoe string budget. Can anyone say we need a hero? Don't fool yourself because at the end of this story there isn't going to be a hero because all of the steps of the design sequence for this project were not fully implemented in the proper order. They were sacrificed at the altar of getting the machine in as soon as possible.

A project that started out on the right track (performing preliminary engineering and design prior to procuring final funding and setting the final project schedule) was side tracked by an unexpected change in the key equipment item for the project.

In going forward there will be not additional preliminary engineering for the new machine prior to funding procurement due to a lack of insight, lack of funding for engineering, and pressure to get the project done. The result? Major infrastructure upgrades necessary to install the new machine were not incorporated into the final funding request and schedule. The incorporation of these infrastructure upgrades into the project wreaked havoc on the project implementation effort. Numerous supplemental projects were created and implemented to address the infrastructure deficiencies but led to unanticipated additional costs and an extension of the project implementation schedule. Management was not happy about these unexpected changes and someone had to pay.

No matter how much you may want to be the hero on your current project or the next project; the one to get it done against all odds don't give in to the temptation to short cut the proper design sequence because in the end you and your company will likely pay a high cost. Contrary to what people say, they don't really appreciate heroic efforts. They are focused on the bottom line. They value fulfilled cost and schedule expectation rather than any valiant effort that may be put forth by members of the project to do what they think is best. So, do the necessary step of the design effort in order and tell it like it is or everybody may end up in an unhappy situation.

AIChE DVS Student Awards



2007 STUDENT AWARD CEREMONY

AICHE-DVS Section is proud to present the following the 2007 Student of the Year and Zeisberg Winners:

Awards	Widener University	Drexel University	Villanova University	University of Pennsylvania	Rowan University
Student of the Year Sophomore	Tam T. Lieu	Ishai Padawer	Kyle Doolan	Kathleen Wu	Megerle L. Scherholz
Student of the Year Junior	Caitlin E. Feeser	Kendall L. Jennett	Christopher Furcth	Micah Sheppard	Colleen A. McGinness
Student of the Year Senior	Tara D. Iracki	Julianne L. Holloway	Jennifer Ehrhardt	Julius Chung	Lisa A. Scodari
Zeisberg Best Laboratory Report		Thomas G. Salerno Jr			YeJi Shin Dan Urban Ray Zaborowski
Zeisberg Best Design Report				Jonathan Beus Betsy Lee Jocelyn Nelson	

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2007 – 2008 AIChE- DVS Event Schedule

October: Octoberfest, brew tour/TBA
 November: tour/TBA
 January: CEO dinner
 February: Winery Tour/TBA
 March: Pharma Tour/TBA
 April: Student Awards
 May: Plant Tour/TBA
 June: Second Annual Golf Outting

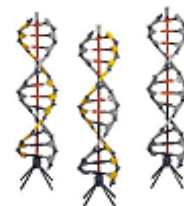
September Meeting Directions & Info

Directions to Rodon: From Philly, Rt. 309N to Hatfield, PA, turn left onto Unionville Pike (0.5 mi), turn left on N Penn Rd. (0.7 mi), the Rodon facility is located on Sterling Dr. at the end of N Penn Rd. (2700 Sterling Dr.)

Directions to Finn McCools: From Philly, Rt. 309N to Hatfield, PA, turn left onto Unionville Pike (1.1 mi), turn right onto Penn Ave., Finn McCools is 0.2 mi on the left (3120 Penn St.)

Meal:

Hot roast beef, pasta with 2 sauces (marinara & cream), Buffalo wings, jalapeno poppers and salad. Drink tickets are \$4 each (good for a domestic draft, domestic bottle or well drink).



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