

# TIERNAN EXPRESS

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## VICE PRESIDENT'S CORNER

I currently read an interesting article on [cheresources.com](http://cheresources.com) titled, "Explosion in a Salt Bath of a Synthetic Fiber Plant," that ties very well into the March 27<sup>th</sup> AIChE meeting. The emphasis of the article was how procedures and the correct materials should be used when doing a specific process. In this plant, one man died and another man had burns that covered over 50% of his body. Imagine going to work and saying goodbye to your children and the next time they see you, you have no skin and they cannot even recognize you. This may not have even been your fault but the fault of another co-worker.

Salt baths consist of sodium nitrite and sodium nitrate. They are used to clean many components such as valves and fittings that come in contact with Nylon and Polyester melts. These parts are lowered into the hot salt bath to clean them of the Nylon and Polyester that have solidified, but there are certain procedures to this cleaning process. In this case, the fitter ran out of the metallic gaskets supposed to be used on the steam jacket for this type of jacketed valve and in the place of the metallic gasket used asbestos gaskets and sent the valve to be cleaned. The jacketed valve was heated with steam around 80 psig but all the condensate was



not drained from the jacketed valve before heated. This had a drastic result when the specific volume increased by almost 350 times.

It created an abnormal pressure change in the tank and the replaced asbestos gaskets could not hold the incredible increase in pressure.

With the tank bursting and the hot contents inside shooting out, the men had no time or chance to protect themselves. This situation could have been prevented if the correct safety precautions were taken and the correct type of gasket was used.

When all of us students venture off towards the endeavors that remain after school (a.k.a. work), it is very important to remember instances such as this so we can

protect workers and our company from injury. Designing a process and giving specifications we would like to be used, is not always enough. Sometimes we must make sure that the proper equipment is being used in the process we design, even down to the gasket between joining pipes for it is our name, and our reputation as an engineer that lay on the line. Industrial and process safety is one of the most important aspects of any engineering and it has become a necessity to consider when designing and implementing a process.

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### TIERNAN EXPRESS TEAM

Editor: Stephanie Monteiro

Layout Team: Stephanie Monteiro  
David Nare

Writers: Mark Materna  
Camila Modenese

Photographers: George John

*If you want to be a part of the Tiernan Express Team from jokes, articles, cartoons to photography, please contact [dnn3@njit.edu](mailto:dnn3@njit.edu) or [scm3@njit.edu](mailto:scm3@njit.edu). Writing looks good on your resume!!!!*

Check out the NJIT AIChE Chapter online at :  
<http://web.njit.edu/~aiche/>

### VP’s CORNER CONTINUED

For more information or related articles, visit [http://www.cheresources.com/new\\_releases.shtml](http://www.cheresources.com/new_releases.shtml) or contact me at [mlm4@njit.edu](mailto:mlm4@njit.edu).

“Knowledge is of no value unless you put it into practice.” – Anton Chekhov

Mark Materna  
Vice President, NJIT AIChE Student Chapter



### MEETINGS IN MARCH/APRIL

- March 27:** Saint Gobain Plastics
- April 3:** PSE&G
- April 10:** Johnson & Johnson
- April 17:** Pfizer Pharmaceuticals
- April 24:** Coney Island Day

Tentative Dates



## RECOGNIZING THE CHALLENGES IN WORKING AS A TEAM

Why is it so challenging to work as a team? In every situation we find ourselves in life, we will have to learn to work with other people. That's when communication and interpersonal skills become fundamental for our success. However, it is difficult to understand someone else's needs while you're trying to find out your own needs and aspirations. The difficult part is to compromise when you are trying to achieve your goal and someone who is not interested in his/her own goals is just standing in your way. That happens, for example, in lab when you really need the cooperation of your partners, but each individual in the group sees the subject differently. While for you that subject or project is as important as any other you might work on, for the others it may be irrelevant. The wise person recognizes these complexities and strives for commitment in making team-work work. So, what are the ways to recognize that your group is out of tune? How can you change that? These are hard questions to answer since you don't know them neither you have chosen them. Even if you choose your partners, very often you won't know whether they will work well together with other people.

First, it is important to recognize who is on your team and why. For example, someone in your team may not understand the subject, or may be late or miss important meetings. We're all different regarding our studying, working methods, and that makes it a lot more difficult. In a team we shouldn't expect to change people's habits, but we should be prepared and willing to compromise.

The second step, and very important, is to be aware of our own flaws. That way we will identify the things we won't want done to

us. Someone once said, "...don't do to others what you don't want done to yourself..."

Third, the goals should be recognized and agreed by the all member of your team. Identifying the goals will guide everyone towards the same direction.

Another important step is to motivate each individual on your team by recognizing their strengths. That will make them more interested in the accomplishment of that project.

Since working together with other people is crucial, and will be part of our lives for whatever we decide to do, the sooner we develop and improve our team-work and communication skills the better.

By: Camila Modenese

### UPCOMING TRIP

#### -----Paintball Trip-----

Skirmish USA in the Poconos

Saturday April 15, 2006

\$50 with student ID / \$60 without student ID

A minimum of \$35.00 deposit is due by

Thursday March 30, 2006.

For more information contact David Nare at [dnn3@njit.edu](mailto:dnn3@njit.edu) or pass by Tiernan 103.

All are welcome ... invite your friends, enemies, and significant others.





# THE WORLD IN 2020

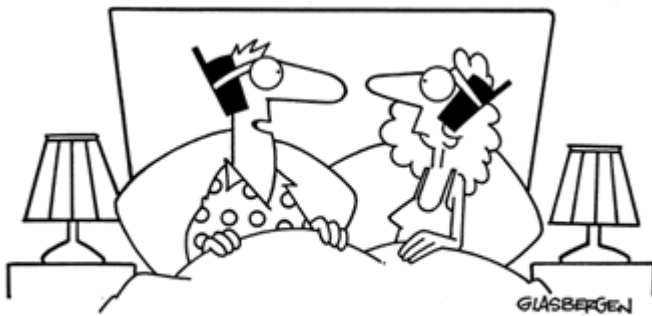


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