AIChE Meeting Minutes

09/10/2013

* Announcements
  + Mines Link
    - Find out about events
    - Log Community Service Hours
    - Recommendation: go online and become a member
  + Float in the M-Week Parade
    - Any interest? None
  + Dues
    - $5 per semester, $10 for the year
    - Covers the cost of refreshments (pizza and drinks)
    - Pay money to Willie
  + National Conference
    - San Francisco, CA
    - October 31 – November 4
    - Early registration ends September 22
    - Events
      * Listen to people talk about the ChemE career
      * Hear about undergraduate activities
      * Attend workshops
      * ChemE Car competition
      * Undergraduate poster presentation
  + Chapter Advisor
    - Dr. Gilcrease
  + Future Meetings
    - Dr. Monroe and his research
    - Mr. Sawyer about the career fair
  + AIChE
    - Feel free to ask questions to any of the officers
    - Highway Clean-Up
    - Dublin Dash
    - Great for the résumé
    - Regional and National Conference
* Internship Presentations
  + Andrea Strain
    - Germanol Intern with Cargill
    - Oil Process
      * Mechanical process to crush the germ seed and gather the oil
      * Chemical process to extract the rest of the oil
    - Ethanol Process
      * Fermentation to feed the bugs and create ethanol
    - Project
      * Tank Vent Calculations
        + Calculate all vent sizes in ethanol and germ
        + Found 11 tanks needed to be resized
      * Ammonia Tank Demo
        + Remove old ammonium hydroxide tank
        + Electrical demo and line cleaning
        + Created plan of action
      * Cooling Tower Water Platforms
        + Place permanent platforms to save money and increase safety
      * Caustic Optimization
        + Come up with plan to optimize caustic usage
    - Goals and Growth
      * Safety Items
      * Time management
      * Networking
    - Lessons Learned
      * The scope of the project changes
      * Time management
      * Communication/People Skills
        + Don’t be afraid to say “I don’t know”
    - Questions?
      * Lay Out of the Job
        + Safety Training for a few weeks
        + List of projects from the boss
        + Tackle the projects with order of importance
      * Projects – Team or alone?
        + Mainly alone
        + Call people in for advice
        + Never isolated
  + Joe Bob Machado III
    - Cargill Internship in the Corn Milling Facility
    - Plant Overview
      * Steep the corn
      * Separate the germ
      * Gather the fiber
        + Water from steeping goes onto the fiber
      * Starches and gluten continue through the process
      * Starches turned into glucose and corn syrup
        + Different products
    - Feed Department
      * Major Products
        + Cattle pellets
        + High protein gluten
      * Projects
        + Tank would always plug because of heavy steep water

Fat in the heavy steep water was causing problems

Viscometer readings

Problems because of a thick layer forming on top

Recommendation: change pipes to sweeping instead of 90 degree angles

* + - * + Watch over contractors

Placed two valves with the handles touching

Caught it and fixed it

Second set of eyes is beneficial

* + - * + Dust collector

Safety Project:

Dust creates explosion hazard

Dust collector was plugging up

Learned about solids handling

Recommendation: increase piping size

* + - * + Team Project

Retain Building

Worked with food safety team to find a place to store samples

* + - * Suggestions
        + Go to the career fair
        + First day: kind of hectic
        + Be flexible
        + Be open to anything that can happen
      * Questions?
        + LyondellBasell vs. Cargill

Petroleum vs. Food Industry

LyondellBasell was more chemistry

Cargill was more mechanical

Cargill felt more friendly

LyondellBasell had more hazardous chemicals

LyondellBasell taught appreciation for safety

* + Taylor Schoenfelder
    - Ethanol Intern with POET
      * Safety is a huge thing
    - Projects
      * Worked with a variety of different tasks
        + Decrease amount of purge time, design a wrench, etc…
    - Advice
      * Be ready to learn
      * Apply school learning
    - Things appreciated
      * Working with different tasks
      * Getting to participate
    - Benefits of Experiences (Internships, Co-ops, etc…)
      * Makes you stand out in the crowd
      * The more you have, the more hirable you are