

ACS at the Illinois State Fair Meeting
Saturday, April 9, 2005
Illinois State University
JH 225

Present: Fran Kravitz, Cherlyn Bradley, Jerod Corbin, Avrom Litin, Milt Levenberg, Marsha Phillips, Frank Salter, Craig McLauchlan, Jackie Stewart, Steven Kravitz, and Donna Salter

These notes/minutes are not in complete sentences. If you feel that you need them in complete sentences, this position can be yours just by asking... ;) The "sense" of the meeting is all here...

Began ~1:25 PM

Presentation by Otis Rothenberger and Jim Webb of ISU. Giving their ideas for a presentation outside the tent as a way to attract people in to the tent from the midway. The theme was "Bag of tricks".

OR and JW said they would "mime" their way through about 5 chemical demonstrations. A *brief, non-complete sentence* account follows...

Flash of flame (cellulose paper in magician Cu striker)

Bottle of water from bag. drink water .. add to cup (green soln)... drink water

call partner JW. give JW Styrofoam cup

add water. add dropper of something. (1% dioxane in 1,1,1-trichloroethane) partner looks in and yawns

bottom falls out! shocking!

Produces trash bag – cleans up

Produces goldenrod paper – spray ammonia solution and it turns red then vinegar solution and it goes away.

Produces bottle of iodine from bag. rubs iodine on hand and shows crowd the stain.

spray starch on hand! turns black. "erases it" with a licked vitamin C tablet.

Produces another cup. Pour green "water" into cup and it foams. Disposes into trash bag.

Add "water" to cup. Then adds powder. Solid now (inverts). Disposes in trash bag.

Throws popper against board.

Shrugs. Guess he's done. Puts it all back in the bag or in to trash as appropriate – water in the cup gets poured into a plant.

...done

OR says he has 2 points to make – 1) waste disposal easy. simple chemicals.

On ACS speaking tours they say "get a whole lot of mileage out of acid/base indicators".

At Fair, we have constraints that they don't. Everything from this presentation can go in to a perfectly safe trash container. Miming here was way to make second point -

2)chemists, in general, seem to think that we need to solely teach chemical principles – mini chem class teaching. OR calls his presentation the "soul of chemistry". Can do

demo and explain principle all the time. But as chemical professionals our symbol (ACS logo) is a phoenix rising from ashes and our symbol also reminds us that we serve the

energy industry and rely on analysis. If trying to illustrate principle, you are limited in the demos you can do, and if you look at a demo in terms of principle, limited, too. But if use any demo in any way, it is more powerful. Demo is just something you do with your hands while you are talking. Simple Acid/Base demos can go a long way. If go before young people in outreach – shirts and funny hats don't get it done (according to elementary teachers) – informal side. Presentations, though, young eyes should see a chemist. They don't wear ties anymore, but wear white coats. Don't need to come as clowns, come as chemists. OR and JW could “make up” 40 demos of common materials for one part of what is done at Fair. Exhibit presentation doing a neat demo to talk about principles – inside activity. On outside... Remembers DuPont Pavilion at 1964 World's Fair. 3 podiums with chemist in white coats. Worked in synchrony. Only did 3 demos. Just talked to people. Then went in and Broadway singers and dancers taught some chemistry.

ML – last year more of a wow? FS said kind of a mix.

OR said 42 gal (barrel) is \$60 now. From that, a chemist can make 100 shirts (at \$30/per) or make \$36 of gasoline. Chemists make things and analyze them. Remind the public of that! ACS is largest scientific org and we need to say how much we do. Outside doesn't need to be hazardous with lots of things to get rid of or lots of set up time. Personnel are issue, though. Not everyone able to get in front of group. OR tells parable of his role as neighborhood watch director and said need to be a community parent --but not everyone knows what to say. Don't know if you could staff it, though.

OR – For materials, go to a real magic store and get flash paper. Or poppers. (Nitrocellulose with Cu, silver fulminate) (Dallas and Co. in Champaign is where they shop) Can do the imploding can thing (heat a cola can with some water in it, then invert in to cold water). Can do the bubble's that don't break.

Goldenrod – JW can get it from Stipes. Flinn or Educational Initiatives also sell it. Can also get the fabrics that are dippable to show up stripes or whatever.

OR pretty much says there are no new demos, but can show us some we may not already be using – thionen on overhead bleached white and then turns violet when off. Could probably use the floodlight. Reverse reaction is slower (maybe a minute). Densities with non-hazardous materials is a tough demo. To be successful you need kids who are good sports. OR suggest the presentation could be two people on risers every 2 hours or whatever.

ML – needn't do it every day. Just weekends.

OR say that he and JW are pretty good at taking young professionals and getting them to be able to do this. They are willing to have a clinic.

OR and JW leave...

Discussion begins. Mud may be an issue. Really neat demos that we can use outside or inside. Do we want to do it outside? Most say yes. Depends on where we are located. Every few hours? Personnel will be key. Being sure they don't run with dog show or lumberjacks would be nice. New guy at Fair knows nothing than used to be there. Perhaps work towards what OR/JW were talking about with their help. Acid/base indicators – rainbow or color changes or whatnot. Knowledge and confidence matter. Need showmanship to be effective. If you don't talk, won't interact as much. But the mime thing worked well and may be better outside instead of in. Would we need a permit for the flash paper/fire?

5 minute break. Discussion of the sign holder of pipe between AL, FS, JC, and ML. Pipes – need threaded. Get at Home Depot. Attach to tent with rope, wire, zip ties, etc.

Secretary – CM will take minutes. Moving on.

Fair Space status --- FK reports that she is still waiting for news from the guy. She is pushing. Just like last year, we are waiting to put in the paperwork since we don't have it. ML said we had umbrella insurance from national ACS last year. Probably undated, but we should probably ask again.

Electricity – 30A again? or 60? Depends on the hot plate need or not. No real policing of the banks. Plugs were 30A maybe? Worked fine until neighbors plugged extras in to our extension cord. Need outdoor extension cord. Price-wise, we don't know cost for electricity. Conservation world doesn't charge for electricity. If that's the case, we should ask for more. We were very close to our limit last year. And it was cool, weather-wise. Air-conditioning? Obama tent had it and it was nice. Not that expensive, according to that tent. Farmer's Almanac said what about last year? Perhaps a good predictor.

Volunteers and Web-site. ML and CM a team again. CM made an “ad” and sent it to folks. It needs a little correction and should be sent to this group. ML says system is ready to go. FS e-mailed teachers last year and will do so again. FK says it should go to schools, too. CM will send it to the committee to forward to them. Chicago section will also send to Chicago's “Minutemen” at companies.

MP spoke to Harsh Bapat at UIS. He doesn't know where the storage locker is, nor does he have the key. He will take an inventory of certain items in the locker (bags, etc). HB agreed to have stuff sent to them and then making sure it gets in the locker. MP said HB could offer extra credit to have student lug stuff. MP expects a lot of material. Lots of weight. J Chem Ed material itself is a ton. MP talked to J Chem Ed about a pre-subscription to potentially get access to online, 2) \$40 to get online access only, 3) extra \$5 for print copy. Teachers can choose and can give them all the facts.

For volunteering, CM hopes people take us up on offer to have “staff for day” at fair. ISU Chemistry Club already on board again. Perhaps offer a sign as a perk that says

“Today the tent is staffed by...” MP asks dry-erase or permanent? Pre-registration deadline? Need about a week notice, only. More convenient for us if more time.

Demos – FS said he would be willing to move to more hands-on area (Mary LeFavre still involved, but she couldn't be here today). 2 things kids clamor for – 1) styrene dissolve in acetone, 2) phenolphthalein on hand then “write” on stuff. Can't see anything until spray (variant on goldenrod) with ammonia. Can erase it with vinegar. Usually does it on a roll of paper. Using paper towels it evaporates very quickly. FS demonstrated. Fill a marker with phenolphthalein? These could be hands-on or demos.

ML - Plexiglass screen discussed last time to keep a higher comfort level for demos. Have several, perhaps, and then have a protective shield. Wood frame that is slotted to slide it in or out. Talented engineer/carpenter? How high? 2 feet at least. We don't want to scare people, either. Tricky line between proper safety and fear. 18"? JS is master of interesting demos... slime again? hit of the show. JS offered some variations: Slime race between guar gum slime, one we used last year, and a glue one. Guar gum one is mostly water – ice cream thickener and it looks more like liquid. Last year they cut down on indicator later in the week as it was quite dark and it wasn't visible with background light. It looked very nice outside. Lasted pretty well, but we had a cool summer. Operating well enough that it probably would be okay for hotter. Non-toxic was nice. Blue hands – wipes needed? Scissors to cut the slime was key. Slime wouldn't be behind shield. Slime in hands-on area? Need some control over it. Demo area – maybe 4' area? Slime separate. Fish tank separate. FS offered new demo -- Every kid has done baking soda and vinegar. Can try it with baking soda dissolved in water and it looks new. Behind screen there. JS -- Cartesian diver contest? (*vide infra*)

Hands-on: Better signage. Step-by-step instructions needed on board behind it. With pictures, too. Hands-on could be better. Needs staffing. Remove it and have more demonstrations, too? Discussion about this. Needs improvement over last year in terms of involvement by kids. Computer was also weak part. Demonstrations were biggest draw. Build on our strengths and improve other areas. JS --Could make Cartesian divers more hands on. Hook and sinker. Pipets with different amounts of water and hex nuts. ROYGBIV of divers. How about divers as a hands-on. pH experiment? Simplify? Just color chromatography with skittles or markers. Make flower or butterfly with paper after chromatography is done. Use pipe-cleaners. Or blank markers (Sanford in Chicago) and write with indicators and then spray with chemicals.

MP has one. Demo by SK. 2 film canisters of vinegar in to water bottle (empty). Add baking soda and put a balloon on top. Balloon inflates. “How to make greenhouse gas” Perhaps easier to do a demonstration of it than a hands-on. Nice idea, though. Can store items in buckets or in jugs. Kids can carry them around and people can ask where got them.

Display boards ... FK – when watched initial demonstrations and he talked about simplicity. Why not each one for a different type of chemist? What can you do as a chemist? Analytical chemist. High school teacher. Each one had a job that a chemist

can do. Use people from this state. 2 lines of what they do and a general outline. Done here. Illinois Chemists at Work. Cosmetic chemist. Food chemist. Water chemist. Poster boards, asked companies last year- ML. Didn't come through. Ask one individual that does that job. Still use company name. Perk for donation. Use end of Fair formation for the display boards. (see previous minutes)

MP said our posters could be whiteboards with what events are going on and when – videos, demos, hands-on: where and when, etc. 2' x 3' displayed and hang from the pipes. Do similarly with the sponsors. If wider than 2' it will obstruct tent entrance. Just has to be removable. Calendar white board – MP showed the chemistry.org one.

Tent furnishings – AL. see break discussion (*vide supra*). Also, could be holes in top where we put up a flag or something. Which parts to buy? Hole could lead to rusting. Sign could catch wind -- Guide wire perhaps -- would hate to cut slits in it. Holder designed to be easily assembled by people with minimal mechanical skill. Should be able to assemble in 20'. Should be able to put in locker. Grease on threads so easier to unthread? Perhaps the dying hardware store in CB's town. Total cost of pipe is ~\$100. PVC pipe probably wouldn't support.

Fans – box fans suffice? Not get 4. Get by with just fans in front. Unless do AC. Little fans in back to circulate air. (see previous minutes)

Mats – could get 6' x 9' indoor/outdoor for \$29ish. Not big enough. Too many seams. Can we rent this? Painter dropcloths? Trip hazard? Get dirty? Stay with dirt? Maybe just underneath the tables to separate our stuff from dirt and make slide easily. 2x4s? Vacuum carpet? Get pricing on these. Remnants? Or garage sale? Throw it out after use? Dumpster dive when students leave? Actionize. Runners. Perhaps ask John (engineer/carpenter) any ideas. DNR on concrete. Continue to look at prices and options. Tent company offers any flooring? FK will ask them. (see previous minutes)

Table skirts – better material? fabric, but dust colored. top could be wiped off since it was plastic. some was in storage. skirt around front table. front table could use a re-painting. particularly the top of it. Plexiglass top for it? What color was it? Say ACS on it? Wall panel on top. White board glued on top. Formica? Paint color – FK will inquire. Fabric around table – go to Joann's and get pieces from ends. Solid colors. Lot of tacks. Staple on to wood tables. Staple gun would like something stiffer for it. Cardboard strips like you use for stapling window liner. Was a ruffly thing to make it look pretty. ML will bring staple gun. Tape held up well but won't work for fabric. Can you staple a rented table? Shouldn't be an issue, but should check. People do it all the time.

Publicity/Ad – CM's flyer that went out and will go to all this group. Publicity to get help and to tell people what we are doing, etc. Solicitation letter went out. Chicago section also putting State Fair in their list of activities. Originally Vicki Finkenstadt was our contact here, but hadn't heard anything. North Shore magazine and Chicago magazine (Reader, too) could tell them. JC - Press release for sections. Send it out to high schools and colleges.

MP - Group of pre-K teachers who'd like to go. Get 4 CPDU for attending, boxes of materials, bags, people to carry their stuff to the car! Charles Cannon will make the CPDU to happen. Need to blow our own trumpet. Sign for teachers to ask for a bag. People don't know where we are and need a sign to see where we are.

AV – weak. Chong and ML worked it out. CZ will still get us a TV and we'll have a computer. MP suggested J Chem Ed materials. MP and ML talked to the J Chem Ed folks and they were excited that we would use it at the fair. Thermite reaction, etc. \$75 for it. A number of eye-catching demos. Videos of Lee Marek doing his stuff perhaps – but need internet access. Could use JC's stuff. He has pictures and videos from his stuff. Video beats still. CDs of ChemMatters or J Chem Ed possible, too. AV- part of problem was location. Will now spend money on Chemistry Comes Alive DVD from JChemEd for \$75 -- ML in charge of getting this and that will come out in May and use MP's name or will ask her to buy it. (see previous minutes)

Promo-raffles : CB. not t-shirts. instead of raffling off t-shirts, raffle the moles. Large ones, not the hand-made ones. \$10 each from ACS catalog. \$100 for them. Go with those. FK not making t-shirts --found a volunteer place that does it. Mole on display for the prize. We won't let them walk as easily. JS's moles were on display, too. Still t-shirts for volunteers.

AV- MP commented on videos that would be shown.

Key to Harsh for storage. He will be here in future. ML took inventory but not sure where it is at the moment. We could squeeze and rearrange but it is pretty full. Pencils are a great idea. More of them. How many? Same number as last year. J Chem Ed pencils also in there with our \$50. Go during daytime or bring good flashlight! Move storage closer to Fairgrounds possibly? ML will look in to it. Next to campground. (1001 Taintor Rd – Animal Protective League Wagon Tails Campground) storage facility was either on Taintor or is on the next road over. Key to Harsh – FS will contact him.

Budget – ML can't talk about it. Have a bank account with ~\$3800 in it. Checking pushing. Lots of e-mail discussion on this. Non-profit. Will give us \$100 to get our business. LaSalle Bank is now our bank. Mary Newburg is the Treasurer. She'll sign. Cherlyn Bradley also a signer. Office Manager for Chicago Section also a signatory – Gail Wilkening. Dreyfus Grant? We applied for an ACS grant. Harsh wrote it. ML will re-new the url. No money from NALCO. We really need the money if ACS grant falls through. MP says we could approach BFI and Waste Management. Point them to the website. Show them what we did last year. (see previous minutes)

Next meeting -How about May 21st? 1 pm. At ISU. JH 225 again. CM will get room

Adjourned ~4:15 pm

Respectfully submitted,
Craig C. McLauchlan