

Division of Professional Relations
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FROM THE EDITOR:

Report from Dallas

The biggest news from the Dallas ACS meeting, of course, was the vote by Council to keep dues unchanged for another year. The implications of this decision are great, so let me fill you in on some of the details. Both the Committee on Budget and Finance (B&F) and the Membership Affairs Committee (MAC) made presentations to the Council. B&F recommended that the full \$4.00 increase permitted by the bylaws be approved, although I understand that the vote of the committee was very close on whether to ask for \$4.00 or \$2.00. MAC presented its case in favor of a zero increase. Needless to say, there was a lot of discussion by councilors.

Early in the proceedings, President Clayton Callis, who presided, took a straw vote. Much to everyone's surprise, the most popular option was for the zero increase (zero, 139; \$2, 72; \$4, 119). Technically, the largest increase required no formal action. ACS bylaws contain a formula that defines a maximum allowable dues increase based upon the rise in the consumer price index; Council can vote to approve a smaller increase, or take no action which lets the full increase take effect.

The official motion was to freeze dues, no increase this year. Among the reasons for this were the perception that increasing dues may be having an effect on the retention rate of ACS memberships; there was concern that lower paid members, as well as government employees whose salaries have not risen much in recent years, were experiencing hardships; and it was noted that the ACS enjoyed a surplus last year of *two and a half million dollars above what was budgeted*, on

top of healthy contributions to reserves in each of the last several years. Of course, reserves are important for the long term health of the ACS — it just seems that someone may be losing sight of the big picture.

The ACS is a *membership* organization. In serving the needs of the membership, and the profession as a whole, the Society produces several first-rate journals, the world-famous *Chemical Abstracts* and related services, and offers several books, *C&EN*, and other publications. Indeed, these efforts have been so successful that non-publishing membership activities account for only about \$10,000,000 of expense out of a total budget of about \$150,000,000.

Yet the major arguments are over the dues rate, and the level of dues supported activities. Council never debates the full ACS budget — that is the responsibility of the Board. Neither does Council get involved with real estate investment decisions and the like, even though these have a major effect on the level of reserves required by the banks holding the loans, which in turn eventually puts more pressure on dues supported activities in the form of increased overhead charges.

I believe that the Council action was clear. A message was sent that the membership wants services (as well as excellent publications), but the dues structure needs to be re-examined. It is clear to me that the supporters of a less-than-full dues increase were not calling for a reduction in services. Particularly in the face of the very healthy financial condition of the Society, the Council was saying, "We need to re-examine what the Society is doing and where it is going. Find some money to cover the shortfall, and let's come back to this." In fact, the shortfall is

contained in the accounting "noise" in a budget the size of ACS's.

Unfortunately, the Society's management appears to be tightening up, and in fairness, they can't be expected to do otherwise unless the Board authorizes some shifting of funds. So check with your section councilors and have them keep tabs on your favorite programs. Personally, I think some money could be saved by cutting back on some of the PR efforts that have gotten a bit out of hand.

Reflection

During the course of the Dallas meeting I had the pleasure of having lunch with a friend who has long been active in ACS affairs. He is much older than I, yet we share many views. The conversation was wide ranging, from thinking what might have been if John Kennedy were not assassinated, to the whole string of political killings in this country, to the devastating effect drugs and lack of national leadership were having on a whole generation of our youth, to problems with teen-age children, to severe medical problems suffered by close relatives. When put in such a context, it's hard to understand how some people can get as excited as they do over some petty ACS politics or trivial issue. A sense of perspective can be useful.

Commercial

Your officers and Councilors were active and visible in Dallas. Interesting programs were presented. We need support. Keep active the voice of the membership. Go out and sign up some friends.

— Dennis Chamot

IMPLICATIONS OF THE EMPLOYMENT-AT-WILL DOCTRINE FOR CHEMICAL PROFESSIONALS

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Many chemists work under conditions of uncertainty. That is, unless they have a contract specifying the duration of their employment, their employment is legally an at-will relationship.

The legal doctrine of employment-at-will is the cornerstone of employment relations in the private non-union sector in the United States. This doctrine is grounded in the turn of the century notion of freedom of contract and its basic premise is that the employer and the employee enter into a relationship voluntarily, and make no binding commitments to one another. Thus, either party is equally free to sever the relationship at any time without penalty (1).

Employment-at-will has not always been the rule in the United States. Early in the life of this nation, a hiring for an indefinite period was assumed to be a hiring for a year as it had been the practice under English law (Statute of Labourers, 1562). At first, American employers abided by this English law which required "good cause" and four-month notice for termination.

The notion of employment-at-will arose in the U.S. at the end of the 19th century from the general belief in the economic notion of the time: freedom of contract. The Supreme Court viewed the employment relationship as follows:

"The right of a person to sell his labor upon such terms as he deems proper is ... the same as the right of the purchaser of labor to prescribe the conditions upon which he will accept that labor from the person . . . [T]he employer and the employee have equality of right, and any legislation that disturbs that equality is an arbitrary interference with the liberty of contract."

Adair vs. U.S., 208 U.S. 161 174-5 (1908).

This debatable "equality of right" was particularly appealing to business. In the laissez-faire mood of the industrial revolution "the rule was adapted because U.S. business liked it" (2). However, one generation's logic is another generation's fallacy. Nowadays,

few people would dispute that the loss of employment has a severe financial and psychological adverse impact on the employee and that unjust terminations, massive layoffs, and forced early retirements waste human skills and cause incalculable societal losses. Something is irreparably lost in a society that allows its highly trained individuals to be treated as "equipment adjuncts" that can be disposed of capriciously or in order to improve the short-term profitability of a company.

The U.S. stands in sharp contrast to other industrialized countries. All major Western countries provide all workers, union and non-union, with statutory protection against unjust dismissals after a probationary period that varies in length (2). In the U.S., in the absence of a contract or statute violation, employees at-will are subject to the unreviewable discretion of their employers in relation to employment decisions. The costs of unjust dismissals in terms of lost productivity and wages, litigation, and out-of-court settlements can be staggering. The cost of human suffering derived from unjust firings should not be tolerated by a society of employees. Strong, proactive action to prevent unjust dismissals is the only acceptable solution.

What has the ACS done so far?

For over 15 years the Society has been waving the flower of the Professional Employment Guidelines (PEG) to employers holding the gun of employment-at-will. Its efforts have not resulted in fewer or more benevolent terminations of chemists (3).

Following the massive terminations of chemists in the early 1970s the ACS compiled the guidelines, a pamphlet first published in 1973 and updated every five years. The guidelines include suggestions for employers for the treatment of chemists during termination such as to provide four weeks notice, two weeks pay per year of service, and to explain rehire privileges to their terminces. Since 1975 the Society has examined hundreds of mass terminations (3) and published semiannual reports in *Chemical & Engineering News* on the compliance of employers with seven guideline standards. For over a decade, employers' overall

compliance with PEG has remained at about 40% with the guideline standards for severance pay and rehire privileges being complied with 16% to 18% of the time (3).

"The ACS is a significant force in science in America" says Gordon Nelson, ACS Past-President (4). "It is the largest scientific society in the world - - 138,000 members, a \$156 million budget, 1800 employees, *people in Capitol Hill every day*" [italics mine]. It is perhaps also a society of at-will employees. According to the 1988 ACS report (7) 9% of members are employed by government, 22% are employed by academia, 62% are employed in industry, 7% are employed elsewhere, and some 1151 members (0.8%) are unemployed. Since only about 15% of all U.S. employees are unionized, it is inferred that most chemists are at-will employees.

The disenfranchisement of trained professionals and the dashing of their expectations for a decent work life will erode the long-term health and productivity of our industries and the profession. There is a concern among some members that the ACS has become a corporate behemoth and that it merely "exists for its own perpetuation" (5). A third of members recently surveyed said they think the ACS representation of chemists is inadequate (6). It is in the ACS's own enlightened self-interest to live up to the meaning of its Mission Statement of 1987 that it "should strengthen efforts" to improve the professional security and economic status of its members. ACS should take a strong stand and use its influence in favor of the passage of federal and state laws forbidding unjust dismissals.

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CAREER MANAGEMENT

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Choosing a technical profession involves a significant investment which is expected to pay off in job satisfaction and security. However, in a rapidly changing world with conflicting pressures it is unlikely that any job will provide lifetime satisfaction or security. Therefore, it is wise to take the initiative to protect our academic investment by developing a career plan. Having a plan will give us a standard for evaluating our career growth and potentially increase our satisfaction with our current job. At minimum a career plan reduces the possibility that our skills will become obsolete.

Career planning includes self assessment, gathering information on career options, setting goals, and developing an action plan. These are activities which we can control. The only restraints are our lack of knowing how to do them and/or our procrastination. There are plenty of resources available to give instructions for developing a career plan. So, the major obstacle is the tendency we all have to delay things which are not immediately demanding our attention. Surprisingly, even in companies where sophisticated programs are created to help staff plan their careers few employees take advantage of the program voluntarily, and even fewer follow their plan.

There are several factors related to career planning which we cannot control. Certainly the economy has been a major factor affecting many career plans, and we have no direct means of controlling the financial condition of our country. The organizations and specific managers we work for have a direct effect on our career path, and at best we can only influence their decisions. The key to dealing with factors we cannot control is to practice career management. Career management involves properly positioning ourselves, adjusting to inevitable change, and planning for the contingencies.

One of the primary positioning techniques is to let managers know of your career objectives and positions to which you would aspire. I am regularly involved in discussions with research managers concerning their need to fill a position. The decision to look outside that research group to recruit someone is

based on the assumption that there is no one in the group who is ready or willing to move into the open job. I often wonder if there is actually someone available internally who would be interested and qualified, but has not expressed interest.

Proper positioning also includes having the required academic credentials. For engineering and scientific jobs appropriate degrees are essential. Experience will rarely be an adequate substitute for formal training. However, these technical academic credentials may not be appropriate or adequate if your plan is to transition to management. It may be necessary to get some formal business training. It may be necessary to develop skills in public speaking, writing, leadership, and social interaction for positions which interest you.

In selection interviewing I always look for evidence of good communication skills, leadership qualities, team orientation, and social effectiveness. The degree to which these factors determine the selection varies with the type of position, but they are always factors. Whether consciously or unconsciously these same criteria are used for promotion decisions.

Even if you have all of the necessary skills there is another positioning factor which must be considered. This is the matter of reputation. A good reputation will help overcome some skill deficiencies, but a bad reputation will often negate a strong set of skills. As an internal candidate you are well known, and you have established with others expectations of your performance. As a candidate for a position in another company your past performance is going to be evaluated on the basis of your references. In tight technical circles your sources of reference are often known by technical managers in the hiring organization, and the reference information is many times very candid. Maintaining a good reputation is essential for successfully positioning yourself for career growth.

Some scientists and engineers may respond to a discussion of career planning or management with a degree of apathy. They like the work they are doing, and their company's philosophy is well matched to their value system. Change was never particularly attractive to them anyway.

There is an interesting paradox of a professional researcher's commitment to effecting change in their profession but resisting organizational change. However, the pressures of competition, foreign and domestic, are forcing companies to change, and it is necessary for employees, scientists included, to adjust with the changes. Whether we endorse change or not, it will be a reality, and our career paths cannot be set permanently with no allowance for the dynamics of our environment.

In our organization we formerly stated that our objective was, "Science for the benefit of mankind." Now our stated objective is, "Putting technology to work." The change of objective was necessary to be competitive in today's business climate. Good science cannot happen without good business awareness and responsiveness; nevertheless, this change is difficult for some whose values were more closely aligned with the former objective. Obviously the research staff cannot ignore the change, and there will be adjustments to career plans accordingly.

We may fear the uncertainty of taking on new assignments, but we must also be cautious about becoming stagnant and obsolete. How many secretaries do you know who resisted word processors, and now find themselves in less meaningful positions. They have been replaced by another person whose clerical skills were no better, but who accepted the challenge of learning to use computer equipment. These types of observations can make the fear of becoming obsolete stronger than the desire to resist change, and we recognize that change cannot be ignored.

Sometimes a career plan is not working out because opportunities do not arise or because a manager does not support your career plan. For these circumstances it is necessary to have developed contingency plans. It may be that you will be able to wait longer than you had planned for an advancement opportunity, or you may have to make a move to another organization to realize your objectives. The career plan will help you to make an intelligent decision that is not skewed by emotions or stimulated by a particular event.

The options which professionals usually considered are whether to remain in a technical role and progress through levels as a

CAUTION AND COMPLIANCE: DUBIOUS BUILDING BLOCKS OF A CHEMICAL PROFESSION

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senior scientist or to go into a management position. As a senior scientist the options are to become a focused expert in one area or to remain broad-based. There are rewards for becoming a specialist in terms of prestige and sometimes salary, but there are the risks of dedicating oneself to a narrow area which may lose its popularity as a research topic. If that happens job opportunities become limited and salaries decline. The generalist has good job security, but may never experience being in intense demand.

The dual ladder is used by some organizations to designate the options of management or technical contributor. The management option has the lure of being equated with success. Social pressures contribute to making management attractive, and many organizations fuel this pressure by providing higher pay scales for managers.

Professionals are also attracted to management in anticipation of having the power to make policy and set direction, but later find that managers have limited real autonomy. Once a professional has become a manager it is difficult to go back to a technical role because it would be viewed as having failed or taking a step backward. In addition the management salary may have increased the standard of living making it difficult to go back to a technical position. Many professionals are well satisfied with their transition to management, but it is wise to consider some of the potential hazards of such a move.

There are no career paths which are right for everyone, and often a career choice does not meet one's needs for the extent of the work years. That is why it is important to develop a plan which is suited to your set of skills, interests, and value system. Making use of your common sense, some easily obtained tools and instructions, and an investment of some of your time could help you avoid career disaster and, instead, bring attractive rewards.

I have been in and around the chemical industry for two or three decades now, and I would like to share a few observations with you about how we develop people in our industry. It seems to me there is an inherent contradiction between how we first train new college hires—the chemical engineer with whom I am the most familiar—and what we ask of them later in their careers. Perhaps the contradiction is necessary, but as you make your way in the industry, it might be worthwhile to consider this argument.

Basically, my point is that early in their careers chemical engineers and many chemists are rewarded for compliance with specs, following procedures, and not making mistakes. Despite what management might say about creativity, initiative, or innovation, we really don't want those youngsters getting too creative and turning knobs and valves or experimenting with the mix on the chemical train. "Just keep the train operating within spec" is the standing order each day.

On the other hand, when the young chemist eventually grows into a general business management role, higher management looks for risk takers, creative problem solvers, and aggressive business strategists. The cry is that the Corporation cannot afford to have people who will work within the "specs" as defined by the past. Words like, we need "aggressive" and "innovative" people, are heard from the top executive levels.

I wish I had a nickel for every time a top manager has commented—"Ol' Joe runs a hell of a smooth operation, never makes a mistake—but he never takes a chance on something new or different." In short, we grow our talent by rewarding the 3Cs—compliance, conformity, and caution. Afterwards, we look to these same people later in their careers and ask for roughly the opposite attributes.

At this point you may be getting a little excited by my sweeping generalizations. I am sure there are exceptions. Some chemical companies try to encourage innovation; but the nature of the industry, I suspect, limits the amount of experimenting that can be done.

One company I know called it "prudent

risk." For those of you who don't understand that phrase, a prudent risk is, of course, one that works. It means you can take risks, but if it fails, by definition it was an "imprudent" risk and a violation of company policy. The message to the aspiring young chemist is quite clear.

Let's go back to the young graduate's first days on the job—new diploma and all. Early on he is told about how proud he should be to have been chosen by the employer. "We only hire the best people from the best schools across the country." The idea is to build pride in the company—or "socialize 'em"—so that when a headhunter comes knocking in a couple of years the new grad will be reluctant to leave.

Next the company's successful history is portrayed and the ideals of the corporation pronounced. The message is clear. We are a great corporation and if you want to succeed here the institution expects certain kinds of behavior on your part. Whether it is called indoctrination or socialization, the message is that you are in our house and you will play by our rules.

The real biggie, however, is the spec book. Good chemists produce within specs and have good yields. Outside of specs is bad and inside of specs is good. Follow the cookbook rules. Again, compliance is the value. Don't do anything outside of specs and don't innovate without permission.

Also, early in the indoctrination process someone from the Safety or Environmental Protection Department will make a speech. The thrust of his remarks are caution. Blow up the plant or have a spill and there will be some rather negative effects on your young and perhaps stillborn career. Be careful. I could do a helluva job on cautioning new hourly chemical operators about dangers in the plant and the potential sources of cancer. I did such a good "orientation" job some of the new operators never did report for work after lunch break!

For our new chemist next comes an important message. I don't know who thought this one up, but I'll bet its part of every chemical plant's culture. There are variations, but it goes like this—"When we sneeze at the front end of the plant we catch cold in the back end." The point is made that

Continued from the previous page

chemical plants are integrated animals and what happens in one part affects the other part of the plant. I've often wondered what the people in the middle are doing. Aren't they supposed to prevent that kind of ripple action?

I submit the very nature of a chemical plant tends to necessarily encourage centralization of decision making and control. You simply cannot have one half of the plant running off doing its thing without affecting the other parts. I think this is true of daily operations, but it carries over into capital improvement, coordinate marketing, and other aspects of our industry. It inspires a centralization mind set.

By contrast, if you are in a service industry or running a machine shop, planned capital investments are less likely to have a ripple effect throughout the entire operation. Impact of change is more easily isolated because of built-in circuit breakers in the flow of goods or services.

Typically, a change in one part of chemical process potentially will have immediate effects on the other parts in terms of balance, flow, or other considerations. Hence centralization and control seem to be more critical in chemicals than in many other industries. The 3Cs mentioned before are more than a passing managerial style, but they are founded in necessary and practical reasons.

If we take that premise a step further, we

can say centralization depends on good upward (and probably downward) communications flow of information, and a resulting centralization of decision making. It might be an overstatement, but the very nature of the business tends to encourage a bureaucratic approach to operations. If by bureaucratic we mean policies, procedures, levels of authority, defined jobs and duties, and control mechanisms, there certainly are many of those footprints around a chemical plant. By using the term bureaucratic, I don't intend to pass judgement. The term seems to describe the nature of the beast.

For our young engineer, it is clear that if in doubt as to whether to make a decision or not, the bias is to send it upstairs. A pattern of upward delegation can readily emerge.

Now let's look at what happens when the successful engineer is promoted eventually to manager of a profit center, L.O.B. or general manager of an SBU or whatever a "free standing company business" is called. The chemist turned general manager is now faced with a wildly changing world and market. Anything and everything seems to be in transition. For example, angry publics are not impressed with the chemical industries' public relations efforts (as I am also). They insist on change. Continuing to go by the book is exactly what they do not want the company to do. In fact, trying to operate with a "spec" book in this kind of rapidly changing world is a prescription for failure. The qualities of creativity, initiative, and risk taking are the very attributes that are in great

demand in our industry. Managing for change rather than perpetuation is the key talent.

In short, the requirements for success at the top are much different than the requirements for success early in careers. If you are still with me, you might ask—"Okay if that is true or at least partially true—what do I do about it as an aspiring chemist or chemical engineer?"

I think there are a couple of things you might consider. First, recognize that there is an inherent career contradiction. What might have made you the promising new kid in the plant may not be the talents or attributes you'll need when you reach the summit.

Do not allow yourself to be seduced into merely being "specs" compliant. Don't become conditioned by your environment. Don't let your natural creativity and initiative become trained away. Always look for opportunities to do things a little differently. Keep trying.

There are many daily ways you can practice your creativity, initiative, and imagination. Maybe discretion and persistence have to accompany those initiatives, but don't give up. Recognize that those efforts might not be immediately appreciated or rewarded in your current situation, but in the long run those are the qualities that will pay off for you. Test the limits. You may even be pleasantly surprised to learn that innovation and creativity are appreciated by some people in our industry — even if it is only as "prudent risk taking."

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DPR BUSINESS

Under the new rules, councilor representation is adjusted only once every four years. To make sure the DPR keeps at least two councilors, and to have any chance of getting a third to share some of the increasing load, the Division needs to grow. Our membership needs to increase

substantially over the next year. Copy the form below, and sign up some friends. Sign up some people you don't like so much, also; maybe they can be educated!

Note: As a special gesture of recognition to retirees, DPR has set dues for retired members at one-half the full dues rate

(\$2.00). If you qualify for retired status and wish to take advantage of this dues reduction (or if a friend qualifies), *notify the DPR Treasurer* to avoid recurring problems on your ACS dues bill. Write to Dr. Stephen T. Quigley, Treasurer, DPR, 2908 Upton Street, N.W., Washington, D.C. 20008.

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