

Division of Professional Relations  
Box 286, Rahway, N.J. 07065



DENNIS CHAMOT, *Editor*

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## FROM THE EDITOR . . .

### Federal Chemists

The Civil Service Liaison Subcommittee of the Committee on Professional Relations (of which I am a member) recently looked into the possibility of the loss of 150 jobs for chemical scientists in the cotton and wool programs of the U.S. Department of Agriculture. The cutback would be the result of budget constraints set by the White House.

Several people, including myself, felt that the money involved (less than ten million dollars) was far too small a savings to warrant destruction of many man-years of expertise built up in these areas. After meeting with officials of the Department of Agriculture, the Subcommittee decided that the ACS should officially comment to the Congressional appropriations committees on the level of R&D support in that Department. Just prior to the meeting, I heard from ACS Board member Warren Niederhauser (a former chairman of the Division of Professional Relations), expressing his concern about the potential cutbacks. It turns out that Warren's very successful career with Rohm and Haas got a big boost early on when he was able to successfully utilize the results of some USDA research, so he has a first hand appreciation of its value.

To make a long story short, we reported our current intelligence to Warren, who then put in a prodigious effort and within a few days, produced a fine, detailed statement for ACS use. This was presented to the Board, some changes were made, and the statement was eventually sent to appropriate Congressional people. I don't know yet if the ACS effort was successful, but if it is, much of the credit must go to Warren Niederhauser.

### Contents

The bulk of this issue is devoted to several papers from the DPR symposium, "Is the Chemist a Professional?" The last article (by Sheridan) was not presented at the symposium, but it was submitted to us some time ago, and this seems as good a place as any to publish it. The four papers provide rather stark philosophical contrasts. Comments?

### NOTICE

The annual Business Meeting of the Division of Professional Relations is usually held at the Fall ACS national meeting. The meeting will be in Miami during the week of September 11. As of this writing, I do not have the exact time and place, but consider this an invitation to all DPR members to attend the annual Business Meeting. Check *C&EN* for the meeting program details, including an excellent symposium on affirmative action.

— Dennis Chamot

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# THE CHEMIST AS A PROFESSIONAL

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Professionalism in its noblest sense was described by Hippocrates when he told his associates, "The purpose of our work is to keep people youthful . . . as late in life as possible."

Like most physicians in past decades, at least, who did try to serve the interests of their patients over their own selfish-interests, the track records of professional chemists prove that they have been generally unselfish, frequently unsung heroes in every professional sense of the word.

Today, mankind needs professional chemists badly — the need has never been more desperate with chemical-based crises engulfing us on all sides. But the non-hero image of the chemist, the negative reporting that his discipline is receiving in the public media is misrepresentative of chemists and chemistry. Are we to stand idly by while one bad penny like Kepone is allowed to block out the public's view of chemistry's blessings in making it possible for more people to enjoy a better, and longer life? As individuals, we must not subject ourselves to the fatal oversight of the fact that it is the public — the 99 percent of taxpayers who are not scientist — let alone chemists — who make the crucial decisions, pass the critical laws that have major impacts on the practice of the profession of chemistry.

For example, how many laypersons out there will realize that behind the following list of everyday necessities, professional chemists are the lead stars — not two-bit stand-ins — and the list could easily be a hundred times longer:

(a) Antibiotics and numerous other prescription drugs used in the chemotherapy of numerous diseases.

(b) Catalysts which have saved taxpayers tens of billions of dollars for numerous commodities ranging from high octane gasolines to packaging films.

(c) Ever better gelatin films for color photography and diagnostic equipment.

(d) An endless parade of unique fibers that are outpacing some of nature's models for easy-care clothing and a host of other uses for fibers.

(e) Synthesis of oral contraceptives and many related chemical hormones.

(f) Unique chemical phosphors without which color TV could never have arrived.

(g) Pest-control agents that have permitted an expansion of the world's food basket without which additional billions would now be starving.

(h) Plastics and resins too numerous to summarize.

(i) Single-cell proteins (derived from petroleum) as new foods for animals, and someday for humans.

(j) Man-made rubbers and elastomers that have freed the Western World from dependence on rubber trees in far away lands.

(k) Synthetic diamonds that are invaluable for industrial grinding and cutting tools.

(l) Ultra-pure silicon and germanium that have become the heart of the huge multibillion dollar transistor and other semiconductor industry.

(m) Harmless lead-free water-base paints, durable new auto finishes, and endless other chemical coating compositions.

Here are some guidelines that I believe each and every chemist must develop if the true potential of individual members of the chemical profession is to be achieved.

Service to others, by contributing your best talents, is the first requisite of professionalism; not until this germ of unselfish dedication becomes embedded in the life-style and philosophy of a chemist can the mark of a true professional be recognized by his peers or by society at large.

Professional recognition of chemists cannot be negotiated or manipulated effectively; it is given voluntarily by society (including government and industry) to those who truly serve it unselfishly.

Earning the recognition of being a professional entails a serious obligation to advance one's knowledge of chemistry, to preclude one's intellectual obsolescence of his specialty, so that the ability to serve improves rather than recedes with time. The American Institute of Chemists program to certify chemists and chemical engineers is being designed to assist this critical requirement of true professionalism.

Professional status cannot necessarily be equated with a high level of economic status. I have observed, however, that the greater one's satisfactions from serving in the best possible way as a standard bearer of his profession, the greater almost always are his financial rewards. This is the orderly approach, not one which focuses on instant monetary gain as the primary target.

The practice of the Hippocratic philosophy of professionalism by chemists leads — slowly sometimes — but inevitably to a freedom which condones and encourages the pursuit of creative research, and a liberal openness in the communication of results.

The professional chemist allots a portion of his time and talents in making his expertise known to public officials when it may be helpful in solving problems that involve chemistry — at both local or national levels.

The professional chemist has an obligation to make a special effort to balance gains or losses that his talent and services may have upon others. Chemistry — its pluses and its minuses — belongs as much to the citizen as it does to each professional chemist.

Each chemist must realize that his fellow professional chemists include a wide spectrum of disciplines and specialties — teachers, researchers, chemical entrepreneurs, presidents of chemical companies, editors of journals, writers of influential texts and popular books, inventors, consultants, etc. Chemists still are professional practitioners when their knowledge of chemistry is used to interface with and assist other professions.

Latest estimates are that some 60% of the nation's chemists and chemical engineers are employees of private industry. Thus, they represent a sizeable voice in, and have a major obligation for, the general welfare, and theirs is the major scientific discipline that underlines so much of our technological advancement and industrial output. Accordingly, professionals must accept a measured load of responsibility for the laws that politicians advance and have widespread effects on the citizenry at large.

Indeed, chemists have been unselfish. Frequently the unsung hero in every professional sense of the word. By and large, their contributions have had far greater impact and longer lasting benefits than Olympiad Gold Medals for physical endurance, the creative prowess of artists or authors, the social consequences of dictators or democratic political leaders. The track record of professional chemists and the hazardous as well as complex disciplines they must master is an illustrious one.

We all stand tall in behalf of our profession and pledge an ever greater commitment to maintaining the highest levels of honesty, integrity, and an unblemished adherence to the profession's code of ethics. In doing so, as individual true professionals, we can play a vital role in man's century-by-century giant step to ever higher plateaus of sanity and compassion. And along the way, we will constantly recognize the commendation of Hippocrates to his associates. Indeed, chemistry has and will do even more to help keep people youthful as late in life as possible, to make it possible for more people to live healthier, longer lives.

\* President and Chief Executive Officer, American Institute of Chemists.

# HUMAN RESOURCES AS A TOOL TO ENHANCE THE CHEMIST'S PROFESSIONALISM

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Human resources capital, investment, accounting, expense, human resources development? What is this concept we call human resources?

First of all, let's explore the background into this concept. What we have today is an outgrowth of the 50's. The 1950's began an era of awareness of the needs of people, and that people are constantly changing their needs and goals. From a company point of view, this was emphasized by a series of studies that showed that salary alone was not a motivating force in the productivity of people. One such study I recall, involved salesmen. Salesmen were compensated by a base salary, commission, and bonuses. When each salesman reached a given income level, his sales curve flattened out. Subsequent increases in commission rates and bonuses failed to increase his sales. As I interpret the study, these salesmen had needs that money alone could not compensate. The company was failing to call on the individual to develop his own resources and reward the effects.

What we seek today in human resources, is an attempt to correct the situation. The concept of human resource capital or investment, human resources accounting, is nothing other than a device to measure the effectiveness of people much in the same way as the chemist would measure the concentration of a solution in moles per liter. It measures all expense items in the light of profits produced.

As a business analyst, I have yet to receive a phone call from a company or management team that says, "Come on out and help us with our company because everything is super, terrific, fantastic." No, they call because there is some problem that either is or potentially will affect profits.

Business analysts typically gather financial statements and data, past and present, and analyze for clues to identify a problem. One big item on all statements is salaries, employee expense. It is the job of the business analyst to analyze employee capital investment in the light of the profit produced. It does not shock me that employee expense is such a large item. In fact, I expect it. What else does a company have other than its people? It is people that make things happen. But in order for anything to happen, those people must satisfy their own individual goals.

Conversely, employees should not be shocked that the company analyzes his/her efforts in terms of prof-

it. The company has a responsibility to its employees, its investors, its suppliers, and creditors to make a profit. There has been a wave of thinking in the past that profits are evil. Profit has somehow been confused with the concept of piracy, usury, and extortion. It is in the employees' best interests as well as the stockholders' that just profits are generated. Without them there is no profit sharing, no bonuses, no retained earnings, no dividends, and if you carry the thinking to its logical conclusion, there will be no investors and no jobs.

Most of the problems I have experienced between company and staff are communications orientated, neither side appreciating the just needs of the other. I wish I had a dollar for every company that has said to me, "I can't find good people, people don't care anymore, people don't give a damn." They make that statement at a time when never before in the history of this country has there been so much talent, education, and capability in their own ranks. They simply are not meeting the goals of those individuals, and those individuals are not meeting the just goals of the company. Result is, the gap widens and the team effort that is so necessary for success fails. Thus, the tragedy of American business.

It is the job of the business analyst to help his or her client, the company, increase its net profit position but not to the exclusion and detriment of the people involved. On the contrary, in the area of human resources, the business counselor is looking to generate a unified team, each satisfying each other's needs, much like a good marriage.

In a distressed marriage, the marriage counselor is usually critical of both parties. So it is with the business counselor in the area of human resources. I, for one, am very critical of my clients and make them work very hard. By the same token, I am critical of the employees and staff. They also must work hard to return the work ethic to the company environment. I am calling on you to develop as individuals, develop the complete person, evaluate yourself as an individual and as professionals. Bear fruit for you and your company. However, I caution you. It must do so if your company is to invest in the program.

To the company and its management team, you must call on the individual to develop his resources and you must directly help him to do so. Then, you are obligated to reward that individual effort in the

light of the profits generated. Do not fall into the old habit trap of the past, where you have dangled the carrot and not delivered.

Where do you start and how do you do it? Do three things. First, think of yourself as a professional, function that way. Start in your own department, but first start with yourself. Second, carry the message to your immediate supervisor. Sell him. Diplomatically rock the boat, if you will. You must generate some wind for your own sails. Third, most business analysts are selling this concept at the administrative level. Therefore, you must sell it at the grass roots level and get the ball rolling. Remember, everybody wants to please. Management, indeed, wants to please its people and the staff wants to please management. Just communicate so they know where you're coming from.

The chemist is rightfully concerned about his professionalism. Specifically, to solve the problem, you must ask yourself why you are not already considered professionals. To help you in this endeavor, I suggest you construct a problem worksheet. The first column of the problem worksheet is labeled **PROBLEM IDENTIFICATION**. Write down the specific problems as you see them in that column. Opposite **PROBLEM IDENTIFICATION**, put down those causes of the problem as you see them (column 2). The third column is to write down your corrective action to solve the causes that are creating the problem. In the fourth column, write down your time schedule of what time you project to complete the corrective action. The fifth column, called **MEASUREMENT STANDARD**, is reserved for listing the goal you expect to achieve on that time schedule. A reward, if you will.

By analyzing why you have not already obtained your goal, that of being considered a professional, you will quickly start listing all those items you consider ingredients of professionalism. You can then identify the problem, what causes the problem, set a corrective course of action on a given time schedule and attain your goal.

From the viewpoint of one who assists management in the decision-making process, I encourage the chemist to develop himself as a professional. Only by management and staff recognizing the needs of each other and both working to attain the just goals of each other, will the goal be met.

# THE CHEMIST AS UNIONIZED PROFESSIONAL

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After hearing the remarks of Dr. Battista I guess that there are chemists and chemists, management and workers. There are several ways of defining a professional. Webster says: a professional is one that engages in a pursuit or activity professionally. In other words, someone who works for pay.

The National Labor Relations Board defines a professional as "(a) any employee engaged on work (I) predominantly intellectual and varied in character as opposed to routine mental, manual, mechanical or physical work; (II) involving the consistent exercise of discretion and judgment in its performance; (III) of such character that the output produced or the result accomplished cannot be standardized; (IV) requiring knowledge of an advanced type in a field of service or learning customarily acquired by a prolonged course of specialized intellectual instruction and study in an institute of higher learning, as distinguished from a general academic education or from an apprenticeship or from training in the performance of routine mental, manual or physical processes."

So you can see that the National Labor Relations Board thinks a great deal more of professionals than Webster. Of course, the National Labor Relations Board's definition was drawn up by bureaucrats, who also rank themselves as professionals, so their definition was more in the nature of a job description than a pure definition. Coupled with the fact that the Board Agents eventually organized into a Union themselves, the better the job description, the better their case for higher wages.

So, let's stick to Webster, and agree that any one who works for pay can be called a professional. If you work for free, they call you an amateur, and if you work for very little they call you exploited. I am sure that no one here works for free, so I wonder if you fall into either of the other two categories.

As one of your own members has written, "The typical professional today, and chemists are no exception, differs in many ways from the professionals of the past. The true professional was an independent, self-employed individual who offered his services to clients. He sold his expertise as a commodity that was valuable and in demand. For these reasons and because fully trained professionals such as physicians and attorneys were relatively rare, these people possessed a great deal of individual bargaining power. The legal obligations of the professional and his client were derived from the contracts that were signed by the parties. The professional agreed to perform the job satisfactorily according to the terms of the contract, and in return, the client was required to pay the fee agreed upon and to provide whatever other material support was needed."<sup>1</sup>

The situation today is vastly different for most professionals primarily because most professionals today are employees. Dr. Battista just remarked that 60% of today's chemists work for industry, and I am sure that a large percentage of the other 40% work in schools and government agencies. They do not accept clients; they are hired by employers. They have lost their independence and with it much of their ability to protect themselves.

Few chemists work under detailed employment contracts. As such they have many obligations and few protections. The chemist is subject to many employer dictated rules and regulations. Not because there is any legal basis, but because as an employee he has little job security. His lack of bargaining power leaves him with little or no input in formulating those policies and rules.<sup>2</sup>

Other professionals have turned to the principle of a Union as a means of solving their industrial relations problems. Lawyers and doctors have always had strong associations, and while these are certainly not Unions in the collective bargaining sense, they have been able to maintain high standards of income for their members. And beyond this, more and more doctors and lawyers who are employed in an institutional atmosphere are turning to the idea of a real Union to deal with their employers. Doctors in some hospitals have formed Unions, and even struck; nurses have done the same; teachers have formed Unions; and have exercised all the rights and obligations that go with such organizations.

To quote again, "One of the big differences between professional employees and all other non-management workers is that the professional expects that he will have a major role in deciding how to perform his job. Unlike a production worker or a secretary, the professional expects to help determine the problems he will work on and the approaches toward their solution. All too often, his expectations fall short of reality. Dissatisfaction may result from inadequate technical support, insufficient opportunity to pursue interesting ideas, excessive interference by superiors, lack of sufficient input to project assignment decisions, and so on. Whether or not there are overriding economic considerations behind these decisions, the professional employee frequently feels he is not treated with the respect he deserves.

"Back in the 'good old days' the individual professional enjoyed a one-to-one relationship with his client. He experienced a great deal of autonomy both in making decisions and in determining work assignments and conditions. Further, he had sufficient control to effectively determine adequate compensation."<sup>3</sup>

Well, due to the fact that very few chemists are organized into Unions, can we assume that employers are treating their professional employees fairly today? Let's take a look at some facts!

One difficulty is finding out the facts. One of the gimmicks used by employers is to tell his employee that his wage is a confidential matter between him and the employer. I remember an old joke about this. The boss says to the employee, "Don't tell anyone what your wage is," and the employee replies, "Don't worry, I am just as ashamed of it as you are." And to some extent this is true. The wages paid to some professional chemists are pitiful.

We have a number of chemists in our Union, and when we bargain for increases, we are told by the Company that they can get all the chemists they want for a lot less money than they are presently paying.

The Chemical Workers Union recently organized a group of chemists employed by a large multinational

company. There are about 25 people in the group. The production and maintenance people were already in our Union and as our wage rates are printed in the contract, the chemists knew how badly off they were.

But to get back to the problem of financial facts, the company has to provide the Union with a list of employees and the wages they are presently paying. In this instance, the wage scale ranged from a low of \$231.00 per week to a high of \$396.00 per week. The high was paid to one man who has been employed for 20 years. The average wage being paid is \$296.00 per week, so you can see that there are not too many getting the high end of the scale.

In this same plant under the Union contract, the janitor gets \$299.00 per week; and the dishwasher gets \$290.00 per week. So you can see that the chemist with four years of college fits in between the janitor and the dishwasher.

But, of course, the chemist is a professional, and maybe he gets to wear a nice white smock, and maybe he gets his name on a little nameplate that he can wear, and maybe he will be the next plant manager, and maybe that is just a dream that he has had planted in his head by propaganda from the Company, who makes him feel that any thought of a Union is being disloyal to the Company.

In our negotiations with this company for a first contract for the chemists, we have proposed a wage scale that we feel will give the professional chemist a decent income, one that will reflect his skill and talent, and that will bring him above the highest hourly paid employee in the plant. Surely a graduate chemist is worth more to the company than they presently pay. And yet the answer that we got from this huge corporation just last week was, "We can get all the chemists we want for the money we now pay; we take chemists away from other companies that pay even less than we do," and they are right.

So, where does the answer lie? Does your Society do anything to raise your wages? Employers openly brag that they can get all the chemists they want, at even less money than they now pay. I feel that the only way chemists can get away from the low wage status they presently put up with is through the process of true collective bargaining, and that means a Union.

My portion of this session was supposed to deal with the concept that a professional can be in a Union. What I have tried to show is that unless your skills and talents and academic status is recognized financially, then I doubt if you are really recognized as a professional at all. When an employer says that you are a professional, and as such you should not lower yourself to belong to a Union, then why does he not recognize your profession financially?

How can an employer pay the average chemist at a wage scale between a janitor and a dishwasher and still expect the chemist to consider himself a professional? Where is the dignity that should go with the title? Where is the money that should recognize the education and training needed to achieve the status of a professional? And apart from the money, where is the dignity that comes from equality? Can an individual really consider himself equal in bargaining

strength to a major corporation, with its high powered Industrial Relations personnel in negotiations? Hourly paid employees find that their Union gives them a dignity that they never had without the Union. The dignity to be able to stand up to the boss and say that the boss is wrong. To say that the employees have rights and insist that those rights be honored. The boss can't fire anyone at will; he has to have a justifiable reason, and be prepared to prove his case to the Union, or an impartial arbitrator.

We heard a previous speaker talk about the role of a chemist in identifying hazards in the Chemical Industry. I think it would be a fine thing if we heard from the chemists in this important area. But when the workers and the public were denied information on the hazards of DCBP, and the hazards were known to

the scientific community, did the chemists cry out? The hazards of vinyl chloride were well known in the scientific community, but again did the chemists use their professional status and cry out? Take the case of Kepone; the hazards were known and hidden. It will now take billions of dollars and many years to clean up Chesapeake Bay, but did we hear from industry chemists? No, the chemists who work for industry were silent.

What about the question of a Union lowering professional standards? Well, does Reggie Jackson play ball poorly because he belongs to a Union? Or is Pete Rose second rate because he is in a Union? Does Carroll O'Connor turn in less than a first rate performance because he is in a Union? All professionals, and all Union members.

I firmly believe that professionals, like yourselves, belong in Unions, and that Unions today are more and better equipped than ever to do a real job of raising the professional status of your industry.

1. Chamot, Dennis, "A Union's Effect on the Legal Obligations of Chemists and Employers," in *Legal Rights of Chemists and Engineers*, Advances in Chemistry Series 161, American Chemical Society, Washington, D.C. (1977).

2. *ibid.*

3. Chamot, Dennis, "Professional Employees Turn to Unions." *Harvard Business Review*, May-June 1976, p. 121.

## THE TVA ASSOCIATION OF PROFESSIONAL CHEMISTS AND CHEMICAL ENGINEERS

Richard C. Sheridan, Past President TVAAPCChE  
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In 1942 the TVA Association of Professional Chemists and Chemical Engineers was organized to represent the analytical chemists, research chemists, and chemical engineers employed by the Tennessee Valley Authority at Muscle Shoals, Alabama. This unique union is still thriving after 35 years and is the only union in the nation with an active membership composed entirely of chemical professionals. This article describes the history, objectives, and achievements of this independent union.

The TVA Act of 1933 exempted this Government corporation from Civil Service laws and gave it flexibility in personnel administration and labor relations which was unusual in the Federal Government. In 1934 the TVA Board of Directors gave employees the right to organize and bargain collectively through representatives of their own choosing. During the late 1930's several unions were organized, and they competed with each other for the right to represent various classes of TVA employees.

By 1942 it became apparent that TVA's Division of Personnel preferred to negotiate with organized bargaining groups and that chemists and engineers were in danger of being absorbed into large, non-professional organizations. Therefore, the chemists and chemical engineers of TVA met at Muscle Shoals on September 17, 1942, and organized the TVA Association of Professional Chemists and Chemical Engineers (TVAAPCChE). The new Association adopted a constitution and presented TVA with evidence of majority representation. In December 1942 the TVAAPCChE was recognized by TVA as the bargaining unit for employees in professional positions involving chemical and chemical engineering, ceramic, and metallurgical work.

According to its constitution and bylaws, the principal objective of the TVAAPCChE is to further employee-management cooperation and to discuss with management representatives any matters affect-

ing the material and professional welfare of its members. Other objectives are to encourage and endeavor to maintain standards of performance, to engage in activities to promote progress in chemistry and chemical engineering, and to advance the educational levels of those interested in these fields.

At about the same time that the TVAAPCChE was organized, several groups of TVA engineers were merged into a Valley-wide organization, the TVA Engineers Association (tvaEA). This organization represents all professional employees performing engineering and technical work other than those represented by the TVAAPCChE; however, the tvaEA also represents subprofessional employees in technical and engineering positions. At the request of TVA management, the TVAAPCChE, the tvaEA, and a council representing several white collar AFL affiliates organized a Salary Policy Employee Panel in November 1943. The Panel was given authority by its member organizations to negotiate on matters concerning all salary policy employees. The individual organizations would bargain with TVA on matters affecting only its bargaining unit. Furthermore, the Panel would negotiate all matters to a conclusion without authorization from the membership of the Panel organizations.

However, collective bargaining between the Panel and TVA developed slowly. A new salary policy was adopted in 1946, but meaningful bargaining did not really begin until 1951. After repeated requests by the Panel, TVA finally agreed to a written contract in December 1950. This document, known as the *Articles of Agreement*, was a compilation of existing understandings and negotiated agreements.

The *Articles of Agreement* contained two new and significant items. One of these items provided that in cases where merit and efficiency were equal in a promotion, transfer, or retention decision, membership and participation in a Panel organization would

be a deciding factor in the decision. The other new provision outlined the grievance procedure and provided for appeal to an outside arbitrator whose decision would be final and binding. The *Articles of Agreement* are still in effect, although the contract has been revised and amended several times by negotiated changes.

The *Articles of Agreement* also provided for pay rates to be based on prevailing rates for similar work in the vicinity. Accordingly, a salary survey was conducted in the fall of 1951, and salaries were negotiated partly on the basis of this survey data. At that time, TVA had a single schedule pay plan for all employees. Grade 4, for example, was the entry level for professional positions. The TVAAPCChE vigorously objected to having the salaries for its members included in the same schedule with janitors, clerks, and other salary policy employees. The TVAAPCChE believed that the salaries of its members were being held down by the prevailing rate data for these other employees. This position by the TVAAPCChE created considerable controversy within the Panel, and the problem was not resolved until separate salary schedules were established in January 1957. Several schedules were created and one of these, schedule D, was reserved for professional employees working in engineering and scientific positions. The schedule contains four grades, and each grade covers a range of steps.

In the 1960's the Panel experienced a growth in solidarity among its members. A Panel secretary was elected to coordinate Panel activities and to serve as spokesman in bargaining and other Panel-TVA relationships. Frequently, the unions cooperated closely, and at one time the TVAAPCChE even considered merging with the tvaEA, but the motion was voted down by the members of the TVAAPCChE.

In 1966 the council of AFL-CIO affiliates dissolved itself and formed three new independent groups.

These unions were then given membership in the Panel along with the TVA EA and the TVAAPCChE. The Panel is now composed of three small and two large unions, as follows, with the approximate number of active members given in parenthesis: the TVA Public Safety Service Employees Directly Affiliated Local Union No. 3033, AFL-CIO (285); the Office and Professional Employees International Union, AFL-CIO (3417); the Service Employees International Union, AFL-CIO (300); the TVA Engineering Association (6100); and the TVA Association of Professional Chemists and Chemical Engineers (104).

Each year the TVAAPCChE participates with the other Panel members in the annual salary negotiations held in May or June. Early in the year management teams conduct a survey of prevailing rates paid by jointly agreed upon employers in the TVA area. After the raw data is collected, a validation meeting is held between representatives of the Panel and TVA's Division of Personnel to make sure the data is factual and appropriate as the basis for collective bargaining.

Each union then analyzes the validated data for its own pay schedule. The TVAAPCChE's salary data committee, composed of the president, president-elect, and three other members, examines the data by several methods. This committee sets the first proposals and targets for the minimum and maximum rates in each grade. Just prior to the beginning of negotiations the TVAAPCChE negotiating team, composed of the president and president-elect, meets with the TVA EA representatives to coordinate their efforts because both organizations bargain for schedule D rates.

The process of negotiation is carried out in joint meetings between the Panel and TVA's negotiating teams and in caucuses of both parties. At the first meeting the Panel submits its salary proposals; at the second meeting TVA responds on salaries and the Panel submits its request for fringe benefit items. Each party then rotates on the two items until agreement is reached, usually after about 15 such meetings extending over a full week. An impasse was reached in 1977 for the first time. Under the procedure outlined in the *Articles of Agreement*, mediation was held in July with William Simkin, former director of the Federal Mediation and Conciliation Service, serving as mediator. A settlement was reached after three days of mediation, and it was not necessary to resort to arbitration.

Another important union-management activity is the Cooperative Conference program. Both TVA and the Panel recognize that conferences between duly authorized representatives of employees and management are desirable. The Valley-wide Central Joint

Cooperative Conference is made up of Panel and management representatives. It develops and guides local conferences and sponsors programs to provide information of general interest about TVA to employees. Local conferences usually meet monthly and deal with a variety of topics related to employee welfare and efficiency. TVAAPCChE representatives participate extensively in these activities and frequently serve as co-chairmen of the local conferences.

Grievance procedures are outlined in the written contract. The members of the TVAAPCChE have enjoyed good working conditions and an excellent relationship with management. Consequently, it is seldom necessary to file a grievance. Usually, any problem that develops can be solved by an informal meeting among the parties involved, the personnel officer, and the Association president or grievance investigative officer. However, the TVAAPCChE can and will use the formal procedure all the way to outside arbitration, if necessary. In the latest case, filed in 1974, an arbitrator ruled in favor of an Association member over TVA's selection of an outside candidate in the filling of a vacant position. In an earlier case, the Association defended a chemist who was being fired by irregular procedures and succeeded in having him reinstated.

*The Researchlight* is the official news organ of the TVAAPCChE. It has been published since 1943, although at times on an irregular schedule. It has occasionally criticized management and management policies. For example, in 1965, the president used *The Researchlight* to deliver a stinging attack on management because a nationwide labor market was not used to determine prevailing salary rates for professional employees. Pay rates prevailing in the TVA area are still used as the basis for collective bargaining, but salaries for TVAAPCChE members were in general comparable to the national averages for industrial chemists reported in the last ACS salary survey (*Chemical Engineering News*, June 20, 1977).

The right to attend professional meetings is not included in the *Articles of Agreement*, but it is TVA's policy to pay per diem, travel expenses, and salary when an employee presents a paper or if attendance is desirable in terms of probable benefit to his work. In other cases TVA may pay the employee's salary but not travel expenses or per diem. Training is covered in the contract, and TVA may pay all or part of the necessary expenses. An employee who takes a college course for his own benefit is usually reimbursed for tuition only. If necessary, his work schedule may be rearranged to permit him to attend the class without losing any time from the job.

The formal contract covers reductions in force in considerable detail. Employees receive at least 30 days' notice of termination, and they are entitled to severance pay amounting to 4 days' pay for each full year of fulltime service up to a maximum of 120 days. Employees with 12 or more years of service have certain reassignment rights, and a sincere effort is made to reassign all employees. An employee who is demoted or terminated due to reduction in force is eligible to have his name carried on the reemployment list for two years.

Officers of the TVAAPCChE include the immediate past president, president, president-elect, secretary, treasurer, and grievance investigative officer; each are elected for one-year terms. The governing body of the Association is the board of directors, which meets several times a year to consider all policies and business of the organization. The board of directors is composed of the above officers plus several representatives. One representative is elected by every ten Association members. The president is the chief executive officer, and he also serves as the TVAAPCChE's Panel representative. Annual membership dues have gradually increased from \$1.00 in 1942 to the current rate of \$36. The officers are paid only when they are required to take annual leave during negotiations or Panel meetings. They are also reimbursed for their travel and living expenses while on Association business. Joint union-management activities other than negotiations are held on TVA time.

Many members continue to support the Association as sustaining members after their reclassification to management positions. The current membership roll is composed of 104 participating members and 25 sustaining members. The membership is about equally divided between chemists and chemical engineers. For several years, the association has had no participating members classified as ceramic engineers or metallurgists. Ninety-six percent of the chemists and chemical engineers at Muscle Shoals belong to the TVAAPCChE. In recent years several chemical professionals have been hired at Knoxville, Chattanooga, and other locations in the Valley. In order that they might be adequately represented, a temporary arrangement was made with the TVA EA where these chemists and chemical engineers could participate in union-management activities along with the TVA EA members. The number of such employees has increased sharply in the last year or two, and it appears that the TVAAPCChE may soon be able to expand into a Valley-wide organization.

*For additional background, see M.L. Brookshire and M.D. Rogers, Collective Bargaining in Public Employment: The TVA Experience, Lexington, Massachusetts, D.C. Heath and Company, 1977.*