

# LOCAL 1245 SCORES WAGE GAINS

Hard bargaining has produced substantial wage increases for thousands of utility workers represented by Local 1245 so far in 1969.

At press time, the following settlements have been reported:

## SIERRA PACIFIC

The members of Local 1245 employed by the Sierra Pacific Power Company of Reno, Nevada, ratified a wage settlement offer of 6½% for the "Physical" employees and 5% for the Clerical employees. The ballots were counted at the end of April and the agreement became effective the 1st of May. Union's negotiating members were Carl Kelly, Pete Salcedo, James Bessey, Elva Dakon and Frank Anderson.

## U.S. BUREAU OF RECLAMATION

The members of Local 1245, I.B.E.W., employed by the U.S. Bureau of Reclamation, recently voted to accept an offer from the Bureau which included a general wage increase of 7% and inequity adjustments up to 11%.

The negotiations were not limited to wages and gains were made in other areas. Among these gains were: gloves and coveralls furnished by the Bureau for certain jobs; revision of the grievance procedure and increased shift differentials from 13¢ and 15¢ to 18¢ and 20¢ an hour.

Union's negotiating committee members were: William A. Haun, Carl H. Cook, William H. Peitz, Lester F. Pingree, James J. Sawdey, Julian L. Watkins, C. R. "Ron" Reynolds and Ed Reith.

## PG&E

The membership of Local 1245, I.B.E.W., voting in a secret mail referendum ballot election, ratified a proposed wage adjustment for Pacific Gas & Electric Company employees, to be effective July 1, 1969. A new schedule will be based on a 6½% across the board increase to all existing classifications and wage rates.

The wage adjustments were negotiated under reopening clauses of the final year of four-year agreements in the two bargaining units represented by Local 1245 on the Pacific Gas and Electric Company properties. Wage adjustments had been made in each of the last three years along with major changes in the pension, life insurance and dis-

ability benefits which became effective January 1, 1969.

The 1969 application, which was across the board to all employees and classifications, will provide an average of 27¢ per hour over the old weighted average for the combined units. The previous average of \$4.13 per hour will become \$4.40 per hour.

Increases range from \$6.40 per week in the inexperienced hiring rates to \$14.20 per week for the top-skilled classifications. The journeyman rate will become \$5.1125 per hour for Division journeymen and \$5.275 for those in the physical General Construction crews.

The adjusted wage schedules create added adjustments in the life insurance, pension and stock programs which are based on wages and will increase those benefits proportionately.

Ballots for voting on the offer were mailed to the 10,705 members covered by the two agreements on

June 6, 1969. A fifteen employee member ballot committee spent two days checking and counting the 6,955 ballots returned by the deadline date of 10:00 A.M., June 21, 1969. Balloting from qualified ballots in the unit of physical employees resulted in a vote of 3,267 to accept and 2,799 to reject, a margin of 468 votes. The clerical unit accepted by an approximate 2.75 to 1 vote of 588 for acceptance and 212 to reject. The 65% return of ballots is one of the highest for participation in a ratification vote in the Local's history.

Union's negotiating committee members were: Ron Weakley, L. L. Mitchell, Howard Darrington, IV, Ed Horn, Harry Welton, Ray Smith and Jim Kuhn.

Local 1245 members employed by S.M.U.D. have just voted to accept an offer by the District. The settlement included a 7% general increase with inequity adjustments

up to as high as 18%.

They received their 9th paid holiday; increased contributions in fixed dollar amounts to Medical Insurance premiums from approximately 50% to 75%; an increase in shift differential from 11¢ and 16¢ an hour to 15¢ and 20¢ an hour; two apprentice programs and an agreement to furnish Lineman's gloves. They also agreed to set up the mechanics for a petition from the employees to the Board to participate in State Unemployment and Disability plan.

Union's negotiating committee members were: Buford B. Bergin, Glenn A. Larson, Victor I. Mitchell, Ronald M. Vierra and C. R. "Ron" Reynolds.

The foregoing settlements reflect major money gains. It must be remembered that while certain wage increases are reported in various amounts or percentages, other monetary benefits must be included as part of total labor costs to various employers.

Where one wage rate may be higher than another in one or another utility operation, the offsets for certain benefits costs should be considered because of the variants peculiar to separate operations. For instance, many publicly-owned groups do not have the benefit structure available to many privately-owned groups, in terms of total labor cost.

In general, wage and fringe patterns are fairly equal according to the type and size of the operations.



## S.M.U.D. Organizing Campaign Successful

Sacramento Municipal Utility District Shop Stewards and active members have been engaged in a tremendous and very successful organizing campaign during the last couple of months.

During the 1968 session of the State Legislature, Local Union 1245 through its Legislative Advocate, M. A. Walters, and in cooperation with other Unions exerted all its influence to get SB 1228 passed. SB1228 modified the Government Code of the State of California, as it applies to Public Agency employees' rights to join or form Unions. Among the more important provisions of SB 1228 were the following:

1. The right of a "recognized employee organization" to meet and confer in good faith with the Public Agency Employer.
2. The right to a written "memorandum of understanding" between the parties after meeting and conferring in good faith and reaching agreement on the subject matter.
3. Provisions for referral of Bargaining impasses to mediation.
4. The right of a reasonable number of employees a reasonable amount of time off to meet with employer representatives and with no loss in pay or benefits.

The key to gaining the foregoing is being a "recognized employee organization". In order to achieve that status it is necessary in accordance with a resolution adopted by the SMUD Board of Directors on

May 15, 1969 to represent a majority of the employees in a bargaining unit. SMUD and Local 1245 representatives worked out the Unit descriptions during several bargaining sessions.

It was determined that the appropriate unit in which Local 1245 had an interest consisted of 405 employees. At that time only 36% or 147 of those employees were member of the Local. Shop Stew-

ards and key members employed by SMUD, being very concerned and determined to gain recognition, embarked on a campaign to sign up those non-members. After only 2 months of a great deal of hard work by these dedicated Union people, 99 new members signed cards which left the unit 61% organized and with 246 members.

On May first Business Manager  
(Continued on Page 6)

## YOUR Business Manager's COLUMN Organizing The Unorganized

By RONALD T. WEAKLEY

As summer rolls around, Union-negotiated vacations capture the interest of most of our members.

While work in our office never ceases, we have learned that a "breather" is good for everyone now and then.

We have also learned that interest in Union matters subsides during the summer season and that this period can best be used by our office to clean up some unfinished business and to start planning next year's program.

Part of the unfinished business at hand includes some interim negotiations with various employers so that we may get some of the problems out of the way before 1970.

On PG&E, this includes some work in the Clerical as well as in some Physical and General Construction groups where nagging

problems require time and attention from both Union and Company.

Some of this work can be accomplished before 1970 but most of it is bound to spill over into 1970 general negotiations.

We also have another big job to do prior to our 1970 negotiations with all employers. THAT IS THE ORGANIZATION OF THE UNORGANIZED.

This job has to be done in order to provide maximum membership support for our ambitious program of delivery for 1970.

Our Officers, Staff, Stewards and other key leaders will do their part but what is most needed is the activity of all members on the job where non-members reside in abundance.

This Local Union does a good job  
(Continued on Page 2)

Please send any corrections of name, address or zip code to P.O. Box 584 Walnut Creek, Calif. 94597

(Name)

(Street Address)

(City)

(State and Zip Code)

# United Crusade and Fund Drives Backed

Local 1245's Executive Board passed the following motion at its May meeting: "To endorse the 1969 United Bay Area Crusade and similar community single-give drives in other areas."

A statement adopted by the UBAC Board of Trustees follows:

## CREDO OF CONFIDENCE

(Officially adopted at the United Bay Area Crusade annual Board of Trustees Meeting May 21, 1969.)

We are witnessing these days a divisiveness and pulling apart that is without parallel in the history of the Bay Area or the nation. It almost seems necessary to "choose up sides" to be able to "get into the act" at all.

Since last fall, we have had an intensification of campus disorder; we have seen tests of community goodwill in matters of police relationships, housing, public schools and minority services. It is difficult for our agencies, or the Crusade itself, to remain aloof from these questions. Sometimes we are drawn into them by our own interest and with totally positive and constructive circumstances. But the most public attention frequently generates from the other kinds of involvement.

Groups interested in special types of services or special emphases in particular population groups often feel justified in making public criticism or condemnation of the United Crusade if it fails to comply with their own specifications as to how the money should be spent. These requests, these criticisms, these confrontations, have a way of attracting broad publicity; and the general citizenry is not always sufficiently acquainted with the background and details of Crusade operation to be able to read or hear such public statements objectively.

There is widespread discussion these days about the "urban crisis." We hear phrases like "meeting new needs" and "remaining relevant." The Crusade is entirely relevant; it is part of "what's happening" in today's climate. The record will show that in Crusade budgeting and in agency programs there has been continuing and major adaptation to changing needs from year to year. (Since 1955, when UBAC was formed, 74 agencies have been terminated or merged, and 61 new agencies have been admitted.)

We know the United Crusade is proceeding on a sound course, aimed toward producing a balanced community-wide program of voluntary services for the total population, not just for a particular segment of its people.

It is important to every Bay Area resident that the United Crusade be supported more fully than ever before . . . that we preserve and strengthen the united mechanism of voluntary giving, rather than allow it to be torn apart by the pressures of special interest or unrelated arguments.

We can expect to see occasional instances of criticism and doubt, stemming from actions of one or more of our agencies or from the self-interest of particular segments of the community. These do not change the fact that we are working for the finest instrument yet devised to harness the voluntary concern and support of corporate and individual donors on behalf of the better life for all the people of the Bay Area.

This is a time of crisis, a time of disruption, a time of confusion. But, rather than weaken the appeal of our United Crusade or dampen the enthusiasm of those who are associated with it, this should be a time of re-affirmation of faith, of rededication of effort and determination to make sure the Crusade exercises the potential for good that is needed more than ever in these troubled days.

Orville Owen, Business Representative, and Leland Thomas, Vice President of Local 1245, along with the San Jose Division Shop Stewards, are active in the Santa Clara County United Fund Drive. Ellis Langley, San Jose Division Manager for PG&E, is the Campaign Chairman this year.

We urge you to support and participate in your local drive.

Footnote: Business Manager Ronald T. Weakley serves as a member of the Board of Directors of the United Bay Area Crusade.

## YOUR Business Manager's COLUMN

### Organizing the Unorganized

By RONALD T. WEAKLEY

(Continued from page 1)

within the practical units it has. The record is clear and convincing to anyone who reviews it in an objective and honest manner.

We sell membership on the basis of service and our production. Our service and production record is an excellent one in terms of return on investment. In fact, it is difficult to find a superior ratio of return on investment anywhere that we know of.

Another item of benefit to all who join and support the diligent effort of Local 1245 toward personal and family advancement and security, is the sense of "belonging" to an organization which has its only reason for existence, the good and welfare of its members.

While some may feel or say that we are not "militant" enough, the record shows that Local 1245 has done a better job for its people in terms of total wages, working conditions and security benefits than any local union in the utility industry across the Nation.

Going outside of the gas, electric and allied industries in which we operate, let's take a look at a few other operations and do a bit of comparing.

Take Auto, Steel and Bell Telephone. We are ahead of these groups on the record.

Auto and Steel unions can and do shut down entire industries. Yet, they cannot begin to match us in terms of total benefits any way one wishes to look at it, if one is honestly seeking the truth of the matter.

Ma Bell used to be way ahead of us. Despite the strikes at Bell, we have long passed up the people in the telephone industry to the point where they envy our present economic and security position. Just ask a telephone worker, who toils for the largest utility in the world,

how he feels about this.

The fact that for many years our people haven't lost one man-hour of pay through strike action to achieve this enviable position, is a tribute to the common sense, hard work and understanding of the membership along with some leadership ability which has for the past couple of decades, distinguished Local 1245 from most other unions.

We must always be ready for the day when any one of our employers may decide to attack us and change the music of reasonable accommodation to reasonable demands.

Should that day come, we must get out of the doldrums of membership apathy and take on a fight for survival, whether we like it or not. We cannot make the best fight possible with a situation where our members are content to allow "free-riders" to abound in numbers all over the lot.

Yes, it goes right down to the working member on the job to organize the unorganized for group benefit and group advancement and, if the worst happens, for group survival.

My preachings in this respect are usually ignored but it is my duty to preach the gospel of organization in order for me to properly lead our negotiating efforts year after year so long as I hold elective responsibility to do so.

Enough about the work at hand. I sincerely hope that all of our thousands of good citizen-members enjoy their vacations and that when they return to the job, they will join me in our organizing task for the betterment and protection of themselves and their fellow workers.

Finally, I hope that all who hit the road behind the wheel or travel by means other than autos, keep safety in mind at all times so that no tragedies will mar what should be a very nice vacation season.

## State Garnishment Laws Voided by Supreme Court

Protections for workers, victims of often cruel wage garnishments, have been established in a decision of the U. S. Supreme Court, which held that by a 7 to 1 vote, no worker's pay can be attached to satisfy his creditors without first having a court hearing.

This is a historic victory for organized labor which early fought against the debtor's prison and in more recent years against harsh garnishment laws which have brought depressing hardship to wage earners.

Although the state law struck down was that of Wisconsin, a total of 17 states have garnishment laws on their books which have few restrictions.

### Additional states affected

The other 16 states are Alaska, Arkansas, Arizona, California, Idaho, Iowa, Minnesota, Montana, New Hampshire, Oklahoma, Oregon, Rhode Island, Utah, Vermont,

Washington and Wyoming.



The majority opinion was written by Associate Justice William O. Douglas, who declared that garnishments were an unconstitutional seizure of property.

### Ancient rights lashed

He lashed out at the ancient rights of creditors that "would pass muster under a feudal regime" and can "drive a wage-earning family to the wall."

Garnishment is an "inhuman doctrine," Justice Douglas continued, used to compound an often "fraudulent" debt by piling collection fees on top of original interest charges.

"Where the taking of one's property is so obvious," he wrote, "it needs no extended argument to conclude that (without prior notice and a hearing) this prejudgment garnishment procedure violates the fundamental principles of due process."



**the utility reporter**  
Telephone (415) 933-6060

RONALD T. WEAKLEY . . . . .	Executive Editor
KENNETH O. LOHRE . . . . .	Managing Editor
L. L. MITCHELL . . . . .	Assistant Editor
M. A. WALTERS . . . . .	Assistant Editor
JOHN J. WILDER . . . . .	Assistant Editor

Executive Board: Roland W. (Ron) Fields, Leland Thomas Jr., Andrew A. Clayton, Herbert E. Dickenson, Anthony Boker, James M. Lydon, James H. Fountain.

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# Editorial

## Wishing Won't Make It So

All thinking citizens of the U.S.A. are concerned over the State of the Union. The Vietnam problem, the urban crisis, the tax crisis, the educational mess, the riots, the generation of class hatred and the spectre of nuclear extermination. This is enough to bug anyone.

Yet, most of us just grumble and do nothing. We take out our insecurities, fears, and other feelings on other people, rather than seek proper political, social and economic reforms which are needed at all levels of government.

We generally vote as a result of reactions to problems rather than vote for real solutions to problems.

Many candidates who seek election or reelection to political office are preying upon all of the baser instincts of a disturbed populace.

Those politicians in office give themselves big raises while they decry inflation. They urge "economic responsibility" as a method of saving the worth of the dollar, but introduce "pork barrel" legislation in reams.

They support the "super-rich" at all times as they continue to push programs which pour billions of dollars into war and other foreign adventures, while our Nation is being torn asunder at home.

Most everyone wants "law and order." No good citizen feels that pornography is good for kids. No good citizen believes in wrecking and burning school, college, or university property.

On the other hand, no good citizen wants a police state. No good citizen wants to be told what he or she can read, see or listen to as a matter of personal choice, so long as in doing so he or she doesn't harm other people.

No good citizen wants our educational system to become a rubber-stamp for the ideas and notions of those who would stifle the pursuit of truth by demanding conformity to some worn out philosophies and theories.

Yet, we are moving in the direction of restricting our own freedoms. Each time we support the restriction of the freedoms of those with whom we may disagree, during a period of frustration and disgust with the way things are going today, we are expanding the capabilities of their use in other situations in which we do agree.

How many of us attend School Board meetings? City Council meetings? Board of Supervisor meetings?

How many of us really study the issues and the alternatives and then telephone or write to our elected public servants at all levels of government, explaining our reasons and point of view? Not many, that's for sure.

We wish things would change in accordance with our personal views. We wish that our public servants would keep in mind and support the idea that moderation is superior to extremism, so that all of us could live in peace and harmony.

Wishing won't make it so. Each and every citizen must "get involved."

Not just at election time when we vote for some soothsayer who promises to "crack down" on some group or another we don't like but at all times. We should keep a close watch on those who spend our tax dollars for in too many cases they twist our frustrated feelings into assaults on our pocket books and our freedoms.

History teaches us that the pendulum swings from the left to the right, from the right to the left, etc.

Let the pendulum swing too far from the arc of the "great middle," which founded this Nation and has preserved it as a model for others to emulate for almost 200 years, and we shall be doomed to the role of an historic relic—another of those great societies which had a great chance but muffed it.

Those who prefer hatred over love among men, war over peace, or oppression over freedom, have a right to their preferences in this country.

Those who disagree also have a right to their preferences in this country.

Perhaps we might look to our Christian teachings and the U.S. Constitution and its Bill of Rights in order to reassess our current situation.

Time is running out. We are doing too much "wishing" rather than living up to the full responsibility of citizenship which includes alertness, careful objective analysis of problems, support of peaceful and productive solutions and most of all, dedication to the principle that we shall not fail so long as we properly utilize the established democratic processes as the means to see to it that we do not fail.

## Local 1245 To Sponsor Competitive Scholarship Contest

The Executive Board of Local 1245, IBEW, has announced that after months of planning and funding its scholarship program, another union hope has become a reality.

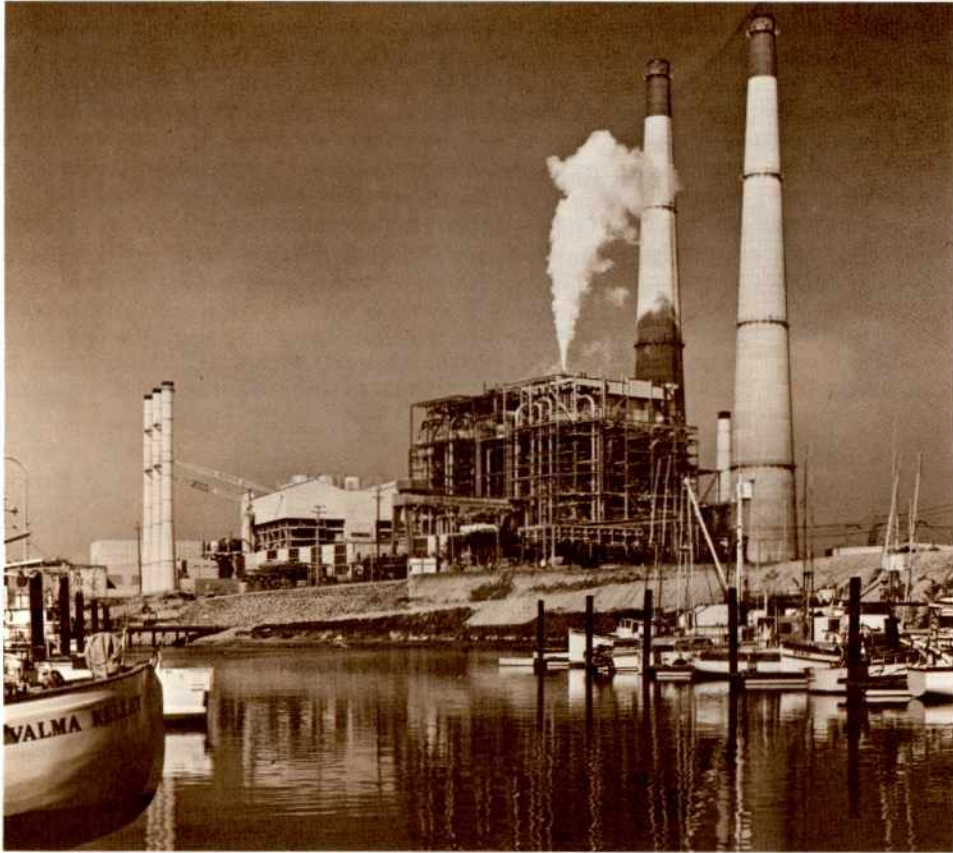
Details were made available at press time and are carried below.

The purpose of this contest is to provide a grant in aid for scholarships to college, thereby making financial assistance available toward the attainment of a higher education.

1. The grant will be as follows:  
\$250.00 per year for four (4) years, as long as a C (2.0) average is maintained and the parent maintains their membership in good standing in Local Union 1245.
2. In order to be a candidate in this contest, you must be a son or daughter, natural, legally adopted or the legal ward of a member of Local Union 1245.  
You must also be a high school senior who has or is graduating in 1969.
3. The Scholarship Grant will be made only to that candidate who intends to enroll in any college certified by their State Department of Education and accredited by the local Accrediting Association.  
Applications may be secured by addressing the Recording Secretary of Local Union 1245 or by calling the Union Office or by using the form printed in the Utility Reporter.
4. Checks will be paid directly to the college upon presentation of tuition bills to the Local Union.
5. All applications shall be accompanied with a written essay, not to exceed five hundred (500) words, on the subject, "Why are Labor Unions important to our economy"?
6. Essays should be submitted on 8 1/2"x11" paper, on one side, preferably typed, with applicant's written signature at the conclusion of the essay.
7. Applications and essays must be mailed to the Local Union, P.O. Box 584, Walnut Creek, California 94597, by registered or certified mail only, and be received no later than 10:00 a.m. on Friday, August 1, 1969.

APPLICATION for LOCAL UNION 1245, INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS, AFL-CIO, COMPETITIVE SCHOLARSHIP CONTEST	
Sponsored by LOCAL UNION 1245, INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS, AFL-CIO	
P.O. Box 584 Walnut Creek, California 94597	Telephone area code 415 933-6060
DATE _____	
I hereby make application to enter the Competitive Scholarship Contest sponsored by Local Union 1245, I.B.E.W., AFL-CIO:	
NAME _____	Date of Birth _____
(Last) (First) (Init.)	HOME TEL. _____
ADDRESS _____	(Street) (City) (State) (Zip#)
NAME OF PARENT _____	
COMPANY _____	
WORK LOCATION _____	
I GRADUATED FROM _____ H.S. in _____ (enclose photostat of diploma)	
WHICH IS LOCATED AT _____	
I EXPECT TO ATTEND _____ COLLEGE OR SCHOOL LOCATION _____	
_____ (Candidate's Signature)	
This is to certify that I am a member in good standing of Local Union 1245, I.B.E.W. and the Candidate, whose name is signed to this application is my _____ and graduated during the term ending _____ 1969.	
_____ Parent's signature and Card No.	

# MOSS LANDING — AMERICA'S LARGEST



The picture above is one of the many angles which demonstrates the size and complexity of PG&E's power plant at Moss Landing.

Mark R. Cook, Union Representative  
Coast Valleys Division

The largest steam generating facility in the world is in Essen, West Germany—coal fired, consisting of 16 units, having a total capacity of 2300 megawatts. "Mighty Moss" is the second largest, with a total capacity of 2113 megawatts, 7 units. The importance of this plant is readily apparent when one realizes that the entire system's generating capacity is 8950 megawatts, with Moss Landing producing almost one-quarter of the total.

Shortly after the end of World War II the rising demand for electrical energy made construction of additional generating facilities a necessity. Moss Landing, located 17 miles north of Monterey, was chosen as an ideal plant site. Construction has spanned some 20 years, starting in 1948, concluding with the addition of the two 750 megawatt units in 1968. Other than the construction of a similar unit in the East Bay, these two giants are probably the last of fossil fueled plants to be built by the Pacific Gas and Electric Company. We will still be in the steam generating business, but the fuel will be different since we are now in the Atomic Age.

About 150 miles south on the coast of Diablo Canyon, currently under construction, are two atomic powered units, of 1060 megawatts each. The first unit is scheduled for commercial operation in early 1973, the second should go on the line by the middle of 1974. Coast Valleys Division would then have a generating capacity of 5233 megawatts, counting the 1000 megawatts at Morro Bay. Brother, that's power! Projections into 1990 at the Diablo Canyon site presently call for the possible construction of five and perhaps six nuclear powered units, all necessary for supplying the demand for electrical energy.

Here are some facts and figures about Moss Landing which we hope will be of value and interest to our members and other readers in the country, from both the lay and engineering viewpoints.

The Moss Landing steam-electric generating plant began operating in May of 1950 with three generating units. Units 4 and 5 were added in 1952. Unit 6 was completed in 1967 and Unit 7 went on the line in 1968. The cost of the first five units was \$82,000,000, while the cost of Units 6 and 7 was \$132,000,000, a total investment of \$214,000,000.

The capacity of the plant broken down in units is as follows:

Unit 1	114,000 kw	House Unit 1	9000 kw
Unit 2	113,000 kw	House Unit 2	9000 kw
Unit 3	115,000 kw	House Unit 3	9000 kw
Unit 4	122,000 kw		
Unit 5	122,000 kw		
Unit 6	750,000 kw		
Unit 7	750,000 kw		
Total			2,113,000 kw

The specifications of the turbine generators provide one with 20 years of engineering advances and design. Breakthroughs in metal science have enabled the turbines to withstand 3675 pounds per square inch pressure when the steam arrives from the boilers, over two and one-half times the pressure in the first units.

**Units 1, 2 and 3**—The turbine-generators for Units 1 and 2 were manufactured by General Electric Company. The turbine-generator for Unit 3 was manufactured by Westinghouse Electric Corporation. The turbines are 3600 rpm, tandem-compound, double flow exhaust, condensing units. Steam inlet conditions are 1300 psig at 950°F without reheat. The

three small house turbines are General Electric Company 3600 rpm condensing units which exhaust to separate condensers. The house turbines use the same steam source as the main turbines.

**Units 4 and 5**—These turbines are General Electric Company, 3600 rpm, tandem-compound, single reheat, double flow exhaust, condensing units. Steam inlet conditions are 1450 psig at 1000°F with reheat to 1000°F.

**Units 6 and 7**—These turbines are General Electric Company, cross-compound, 3600/1800 rpm, single reheat, four-flow exhaust condensing units. The 3600 rpm turbine consists of a single flow high pressure element and a double flow reheat element. The 1800 rpm turbine consists of two double flow low pressure elements that exhaust to a single condenser. Steam inlet conditions are 3675 psig at 1000°F with reheat to 1000°F. These units are the first in the PG&E system to use supercritical steam.

The electric generators' pertinent statistics are quite interesting. Here again we see the strides that have been made in the past 20 years.

**Units 1, 2 and 3**—The Unit 1 and 3 generators are hydrogen cooled and rated 115,000 kva at 15 psig hydrogen pressure. The Unit 2 generator is hydrogen cooled and rated 129,375 kva at 15 psig hydrogen pressure. The generator exciters are motor driven. Generator voltage is 13.8 kv. The house generators are air cooled and rated at 10,714 kva.

**Units 4 and 5**—These generators are hydrogen cooled and rated 129,375 kva at 15 psig hydrogen pressure. Generator voltage is 13.8 kv. The generator exciters are gear driven from the main shaft.

**Units 6 and 7**—These generators are hydrogen cooled with water cooled stators. This is the first application of water cooled stators in the PG&E system. Each unit has two generators. The 3600 rpm generator is rated 445,000 kva and the 1800 rpm generator is rated 375,000 kva at 30 psig hydrogen pressure and 22 kv. Each generator's exciter is driven by a step down gear on the respective generator shaft.

Now we come to the steam generators with their forced draft fans, gas recirculation fans, and the air pre-heaters.

**Units 1, 2 and 3**—Six Babcock and Wilcox Company radiant type steam generators each produce 550,000 lb/hr of steam at 1450 psig and 950°F.

**Units 4 and 5**—Two Babcock and Wilcox Company radiant reheat type steam generators each produce 850,000 lb/hr of steam at 1510 psig and 1000°F with a single reheat to 1000°F.

**Units 6 and 7**—Two Babcock and Wilcox Company once-through, radiant, reheat, pressurized furnace type steam generators each produce 5,100,000 lb/hr of steam at 3830 psig and 1005°F with a single reheat to 1005°F. A 25% capacity superheater bypass system to a 1000 psi flash tank is used for unit startup. Steam temperature is controlled by superheat-reheat proportioning dampers, gas recirculation, and spray attenuation. Combustion air for each boiler is supplied by four American Standard forced draft fans, each rated 400,000 cfm at 40.8 inches of water, 80°F. Two fans coupled together are directly driven by a 5,000 hp, 4,000 volt, 1,200 rpm motor placed outboard of both fans. Flue gas recirculation for each boiler is provided by 2 American Standard fans, each rated 252,000 cfm at 12.5 inches of water. Each fan is driven by a 700 hp, 4,000 volt, 900 rpm motor. Two Ljungstrom horizontal flow, regenerative air pre-heaters are provided for each unit. The air preheaters each have 334,800 sq ft of heating surface. A Bailey Meter Co. solid-state, electronic, analog type "Integrated Master Control System" (with pneumatic drives) is used for combustion control. A Bailey Meter wired-logic, digital "750 Burner Control System" is used for burner light off shut down, and monitoring along with the plant computer.

**Fuel**—The steam generators burn either natural gas or fuel oil. The plant is supplied by two gas transmission lines (26 in. and 24 in.) from PG&E's Super Inch gas main at Hollister. Nine storage tanks have a usable storage capacity of 1,054,000 barrels of fuel oil. Oil is supplied from ocean-going tankers via a fill line which extends into the bay. At full capacity, the first five units consume 935 barrels of oil or 5.95 million cubic feet of gas per hour. Each of the two additional units consumes 6.5 million cubic feet or 1010 barrels of oil per hour at full capacity.

For those who like their figures another way, take a pencil and go to work. The plant at capacity operation on oil would use 69,920 barrels per day. On natural gas its consumption would be 454 million cubic feet per day.

For those who still have their pencil, you can figure how many miles of condenser tubes are at Moss Landing.

**Units 1, 2 and 3**—Each unit has a Foster Wheeler Corporation single pass, crossflow, divided water box condenser with 50,000 sq. ft. of surface area. Each condenser has 7800 aluminum brass, 7/8 in. OD 18 BWG 28 ft. long condenser tubes.

**Units 4 and 5**—These units each have a Foster Wheeler Corporation two pass, crossflow, divided water box condenser with 57,500 sq. ft. of surface area. Each condenser has 8980 aluminum brass, 7/8 in. OD, 18 BWG, 28 ft. long.

**Units 6 and 7**—The condenser for each unit is an Ingersoll-Rand single pass, radial flow, multi-pressure design with 435,000 sq. ft. of surface area, a divided deaerating hotwell and vertically divided water boxes. Each condenser has 25,590 aluminum brass, 18 BWG, 1 in. OD, 65 ft. long condenser tubes which run parallel to the low pressure turbine shaft. The boiler feed pump drive turbine also exhausts into the condenser.

One thing for sure about a steam plant, it uses lots of water. This is the circulating water system.

**Unit 1-5**—Cooling water for condensing steam in the main condensers is pumped from Moss Landing Harbor and discharged to Elkhorn Slough at a rate of 80,600 gallons per minute each for Units 1, 2, and 3 and 46,400 gpm each for Units 4 and 5.

**Units 6 and 7**—The intake structure, located along the east shore of

# AT STEAM ELECTRIC POWER PLANT

the Moss Landing harbor, provides a foundation for the intake equipment. Two Foster Wheeler circulating water pumps supply cooling water to each condenser. Each vertical, wet-pit, mixed flow pump is rated 150,000 gpm at 18 ft. head and is driven by a 900 hp, 4,000 volt, 225 rpm motor. Each pump is supplied from an individual pump bay through two traveling water screens. Two 8-ft. conduits, one per pump, transport the circulating water about 300 ft. to the condenser. A single 12-ft. conduit from the condenser carries outlet water under the inner harbor, across the sand spit 700 ft. into the ocean, a total of 2,400 ft. A 25 ton gantry crane serves the intake structure.

The system is designed for recirculating to elevate temperatures for mussel control. Chlorine injection is used for condenser slime control.

Here are the details of the equipment on Units 6 and 7.

**Condensate and Feedwater System**—Three pumping stages and eight feedwater heating stages raise the water pressure and temperature to 4,500 psia and 548°F respectively at full load flow. A full flow demineralizer reduces solids and the deaerating heater, No. 4, reduces the dissolved oxygen level to 0.005 cubic centimeters per liter or less.

**Condensate Pumps**—Three Ingersoll-Rand half capacity condensate pumps are furnished for each unit. These pumps are vertical, three stage, centrifugal type, each driven by a 500 hp, 4,000 volt, 1,200 rpm motor. Each pump is designed for 4,300 gpm at 375 ft. total differential head.

**Condensate Booster Pumps**—Three Byron Jackson, half capacity condensate booster pumps are furnished for each unit. These pumps are horizontally split case, double suction, single stage, centrifugal type, each driven by a 900 hp, 4,000 volt, 3,600 rpm motor. Each pump is designed for 4,300 gpm and 700 ft. total differential head. The condensate and condensate booster pump motors are electrically connected in parallel to operate as "pump sets."

**Deaerating Heater No. 4**—Heater No. 4 is a Graver spray-tray, contact type feedwater heater, which thoroughly "scrubs" and deaerates the incoming feedwater with steam. Liberated gases are vented to atmosphere. It is elevated to provide sufficient net positive suction head for the boiler feed pumps and is designed for a maximum pressure of 150 psi.

**Demineralizer**—An Infilco full flow demineralizer maintains the purity of the feedwater. Four (one spare) 8-ft. OD demineralizer tanks are each designed for 2,500 gpm flow and 225 psi maximum pressure. The resin beds are each composed of 98 cu. ft. of cation resins and 49 cu. ft. of anion resins. This proportion of resins is selected because the predominant impurities produced by corrosion are cations. Semi-automatic off-the-line regeneration is provided.

**Boiler Feed Pumps**—Two DeLaval half capacity, twin suction, nine-stage, double case, barrel type, centrifugal boiler feed pumps (BFPs) are furnished for each unit. They are each rated 6,300 gpm at 11,800 ft. and 3,493 rpm. Power requirements at design flow are about 20,000 hp per pump.

Piping cross-ties are provided between the auxiliary turbine driven BFPs so that either unit may be started if its turbine driven BFP is out of service.

**Boiler Feed Pump Drives**—One BFP is driven from the front standard of the HP turbine through a fluid drive. The other BFP is driven by an auxiliary steam turbine.

**Fluid Drive**—The American Standard, type VS, Class 7, size 250, fluid drive has a variable speed output with 3,493 rpm expected maximum.

**BFP Turbine**—The General Electric type DRVM, eleven stage, dual inlet, condensing turbine is rated 20,000 hp at 3,490 rpm with steam normally supplied from the third extraction point of the main turbine (at full load) and 2 in. Hg absolute exhaust pressure. The BFP turbine exhausts to the main condenser through a duct.

Other BFP steam sources are high pressure steam from Unit 6 or 7, or 1,450 psia steam from Units 1-5. The 1,450 psia steam source is required for unit startup when both Units 6 and 7 are shut down.

**Feedwater Heaters**—All of the closed feedwater heaters have carbon steel tubes, ASTM A210, Grade C for the high pressure (HP) heaters and ASTM A179 for the low pressure (LP) heaters. The Westinghouse HP heaters have a tube side design pressure of 4,825 psi and are arranged in two parallel strings of 3 half-sized heaters per string. The 4 Yuba LP heaters have a tube side design pressure of 600 psi and are full-sized. The LP heaters can be bypassed individually; the HP heaters are bypassed as a string.

**pH and Oxygen**—Ammonia and hydrazine are proportioned into the condensate system downstream of the demineralizers for pH and dissolved oxygen control.

**Cooling Water Pumps**—Three half-sized, single stage, horizontal, double suction pumps are each driven by a 50 hp, 1,800 rpm motor. Each pump, furnished by Union Pump, is rated 2,200 gpm at 75 ft. of head.

**Cooling Water System**—A closed loop type system provides cooling water to various auxiliary equipment. The system water is treated with sodium dichromate and its pH is maintained at 9.0 to 9.7 with sodium hydroxide to inhibit corrosion.

**Cooling Water Heat Exchanger**—Two heat exchangers are full sized (one full sized spare) and are cooled from the circulating water system. Each exchanger has 3,810 sq. ft. of surface with 1 in. OD, 18 BWG, aluminum-brass tubes. The exchangers were manufactured by Berkeley Steel Construction Company.

**Compressed Air**—Four 334 scfm, 100 psig, Joy compressors serve both units. Two vertical, reciprocating, oil free, single stage, double acting compressors discharge through their respective aftercoolers into one 600 cu. ft. accumulator tank per unit. Service and instrument air are filtered and passed through a dual tower, absorbent type, heat regenerative air dryer,

manufactured by Pall Trinity Micro Corporation. The dryer serves both units. Upon loss of all compressors the service and purge air supplies are isolated, providing a 30 minute control air storage.

**Flash Evaporators**—Boiler make-up water requirements are supplied by one Westinghouse sea water flash evaporator per unit. Rated capacity of each single stage, horizontal, straight tube evaporator is 50 gpm using 8th point extraction with the unit at full load. An emergency capacity of 130 gpm can be obtained by using 6th point extraction steam with the unit at full load. The distillate effluent has less than 0.25 ppm dissolved solids. The effluent must pass through the demineralizer before it can be used as make-up water.

**Auxiliary Power**—The auxiliary power systems of Units 6 and 7 are designed to operate separately although they may be fed from a common source. Auxiliary power is normally supplied from the generator's isolated phase bus via the 22 kv to 4.16 kv auxiliary transformer. Start-up power is supplied from the Units 1 and 2 115 kv switchyard via the 115 kv to 4.16 kv start-up transformer. Power is distributed to the auxiliaries at 4,160 volts, 480 volts, and 120/208 volts. Auxiliary power has a transfer scheme which will automatically transfer the auxiliaries to start-up power when the unit is tripped.

Each unit has a separate 125 volt d-c bus which is served by a 60 cell battery as well as a common 125 d-c bus which is shared by both units. The common 125 volt d-c bus has a separate 60 cell battery.

The major electrical equipment comes in the "giant" size also.

**Main Transformers**—Three Westinghouse single phase, 310,000/537,500 volt grounded wye high voltage, 22,000 volt delta low voltage, outdoor, shell type, forced air, forced oil cooled transformers are provided for each unit with one spare shared between the units. Each transformer is rated 258,333 kva and 289,333 kva at 55 C and 65 C temperature rise, respectively.

**Auxiliary Transformers**—One General Electric three phase, outdoor, core form, self cooled transformer is provided for each unit. Each transformer is rated 20,000 kva with two 4,160 volt windings each rated 10,000 kva at 65 C temperature rise.

**Start-up Transformer**—One Maloney Electric three phase, 115,000/4,160 volt outdoor, core form, forced air cooled transformer is provided for both units. The transformer is rated 30,000 kva with two 4,160 volt windings each rated 15,000 kva at 65C temperature rise. The self cooled rating is 22,500 kva.

**Isolated Phase Bus**—The Westinghouse 22 kv, 110 kv BIL is rated 22,000 amps with forced air cooling. The self cooled rating is 11,000 amps.

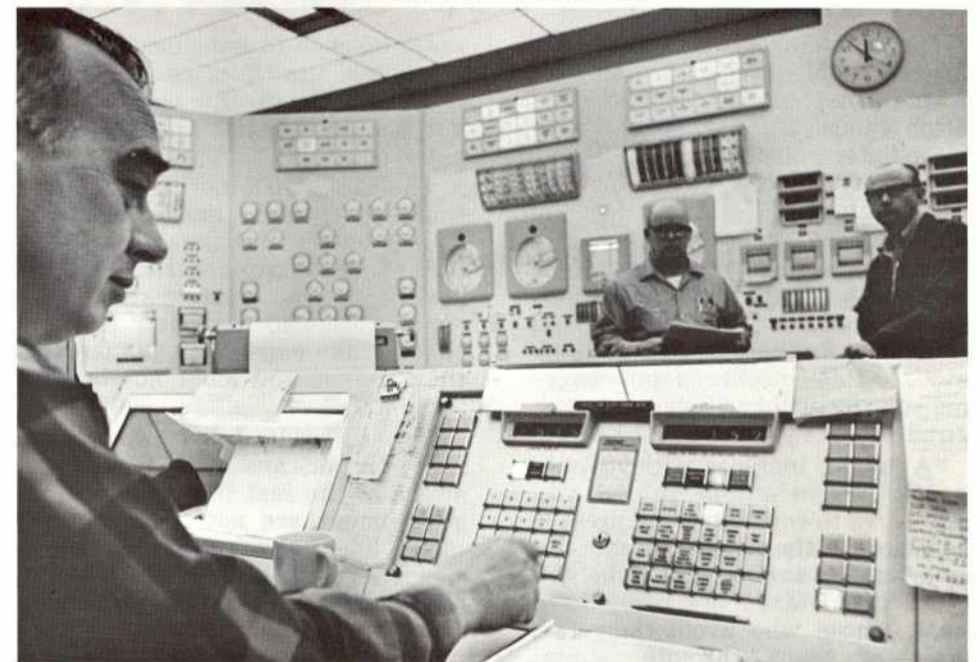
Now we come to the "monster" as some people refer to it. To others it is a thing of beauty, to most everyone it is a computer.

**Computer**—A Westinghouse Prodac 550 digital computer is used to monitor and log operating conditions and perform certain control functions on both units. Over 1,000 (500 per unit) analog inputs and over 800 (400 per unit) digital inputs are scanned for alarm or abnormal conditions. In addition, scanned values are stored and averaged for periodic performance analyses of the various equipment. Control functions of the computer include unit trip test, burner management, turbine startup and shutdown, condensate conductivity, superheat temperature set-point control, load run-back, voltage regulation adjustment, and temperature control of cooling water, generator hydrogen, and turbine and boiler feed pump lubricating oil. This is the second power plant computer control application in the PG&E system. The first computer was installed at Contra Costa Power Plant, Units 6 and 7.

Last but not least, we come to the switchyard which funnels out the electric energy generated.

**115 kv Switchyard**—Switching facilities are available to connect Units 1 and/or 2 to any of six 115 kv transmission lines. One of these 115 kv lines

(Continued on Page 6)



The above photo shows Shop Steward Dick Clark, Control Operator-Relief, operating the console for Units 6 and 7 at Moss Landing. In the background, Dave Nichols, Shift Foreman, and Harry May, Relief Shift Foreman, are shown observing the operation.

# "Mighty Moss"

(Continued from Page 5)

serves Units 6 and 7 via the startup transformer. Eight oil circuit breakers (OCBs) have an interrupting capacity of 3,500,000 kva each. One OCB has an interrupting capacity of 5,000,000 kva.

**230 kv Switchyard**—The 230 kv switchyard may be connected to any of the Units 1-5. Seven OCBs have 7,500,000 kva interrupting capacity each and three OCBs have 5,000,000 kva interrupting capacity each. The Units 1-5 may be connected to any of four 230 kv transmission lines.

**500 kv Switchyard**—A separate 500 kv switchyard serves Units 6 and 7. Units 6 and 7 have no interconnection to the 115 kv and 230 kv switchyards except through the startup transformer. Four Westinghouse, 3,000 amp, 500 kv, sulfur hexafluoride, circuit breakers each have 35,000,000 kva interrupting capacity. Units 6 and/or 7 may be connected to the Metcalf and/or Los Banos 500 kv transmission lines.

We could go on about the arrangement of the structures, the elevations, foundations, superstructure, turbine-generator pedestals, etc. We do think that mention of the stacks of 6 and 7 Units is a must.

There is one reinforced concrete stack for each unit. They are 66 ft. outside diameter at the base, 20 ft. outside diameter at the top, 500 ft. in height, and have Cor-Ten steel liners. A 750,000 gal distilled water storage tank occupies the lower portion of each stack.

By comparison, the stacks for Units 1-5 are 225 feet high and they are 18 feet in diameter.

The stacks of Units 6 and 7 are doweled into the foundation at the base.

The stack foundation is a 75 ft. octagon supported on piles. The maximum required capacity of each pile is 190 kips dead load, 450 kips dead plus seismic loads, 100 kips uplift and 8 kips lateral shear. There are one hundred-twelve 24 in. hollow, round, prestressed, precast concrete piles, 24 ft. long for each stack. (One kip equals 1,000 lb.)

One little known feature of the Moss Landing Power Plant is the General Electric Testing Facility. This facility, normally manned by Moss Landing plant personnel, conducts tests designed to improve boiling water reactor applications, jet pumps for recirculating water, steam separators, and steam driers.

The total personnel required to operate Moss Landing Power Plant is 157. This includes bargaining unit people and supervision. These units have to be overhauled and Unit 6 has just been completed. This takes manpower and the overhaul of #6 required an additional 75 employees from other plants in the system. Normally an overhaul on a unit this size takes from 8 to 10 weeks, three shifts around the clock.

The technical and mechanical skills required to operate and maintain a plant of this size are numerous. The job requirements, training, wages, hours and conditions of these skilled employees have been negotiated by Local 1245 of the I.B.E.W.

A large majority of the employees at this plant who are eligible for membership in the I.B.E.W. have taken advantage of this opportunity and joined Local 1245.

The plant at Moss Landing has seven Shop Stewards. The Steward has many responsibilities, but his main function is to process and attempt to solve the grievances and problems of his fellow workers at the first level. His job is often a thankless one and he deserves our vote of thanks.

The Shop Stewards at Moss Landing are: C. P. Williams, Mechanic, Richard Turner, Welder, Lou Harness, Electrician, Wesley Dietrick, Senior Control Operator Relief, Dick Clark, Control Operator Relief, Jim Mauzey, Control Operator and A. J. Parks, Control Operator.

The people combined with equipment make up what is known today as "Mighty Moss", the largest steam electric generating plant in America.

## LABOR NIXES SURTAX

The AFL-CIO has told the House Ways and Means Committee that it would not support surtax legislation "until it is combined with immediate, substantial and equitable reform of the federal income-tax structure."

The AFL-CIO noted: "Extending the surtax beyond its June 30, 1969, termination date means that America's workers will again be asked to bear a tax increase. The surtax levy on 1969 incomes from wages and salaries will be 10 percent compared to 7.5 in 1968.

"A surtax increase without substantial and equitable reform will only serve to compound the present injustices in the federal income-tax structure. A surtax cannot be collected if no taxes are paid. As a result, those who avoid their fair share of taxes through capital gains, depletion allowances, fast depreciation writeoffs, tax-exempt state and local bond interest, and other tax-escape routes will pay no

taxes on such exempt income. And, of course, the taxes on this privileged income of the wealthy will not be increased if the surtax is extended."

The AFL-CIO, noting that the committee had uncovered tax abuses in its hearings, said that these facts "have whetted the appetites of the vast majority of Americans who pay their full tax share. They expect tax justice and they cannot and must not be disappointed."

The AFL-CIO told the committee: "Americans are now fully aware of the fact that the costs of government are not being shared fairly. They also know that, when a privileged few are able to avoid the tax collector, others must reach deeper into their pockets. The injustices in the nation's revenue-raising methods cannot be ignored—or compounded through enactment of a tax increase based on a structure that is inequitable."

## Congress Slow on Labor Bills

The 91st Congress has been slow to act on legislation of concern to the nation's workingmen, although there are many proposals in the congressional machinery.

The slow pace has both its good and bad sides.

The bad is that organized labor believes that some legislation is needed now to correct serious inequities. The good part of inaction is that the growing number of anti-labor measures aren't faring very well, either.

Since the 91st Congress started to work in January more than 15,000 bills have been introduced. Most, including a number of labor-related measures, will never be heard from again.

Following is a roundup of where labor bills stood at the Memorial Day recess.

◆ **Occupational Health and Safety**—Safety costs money and there has been heavy opposition to effective legislation in this field. To date, no committee action has been scheduled by either the House or Senate. The Nixon Administration has not taken an official stand.

◆ **Construction Safety**—Hearings have been held by both the House and Senate. Construction workers are the only major group of workers doing contract work on federal jobs with federal safety and health guarantees. Labor Secretary Schultz has endorsed the principle of the legislation but not the special bills backed by labor.

◆ **Farm Labor**—High labor-priority bill to bring farm workers under National Labor Relations Act has been the subject of hearings before the Senate Migratory Labor Subcommittee.

Schultz has offered counter-proposals closer to legislation urged by the Farm Bureau. They have been criticized by organized labor. He would set up Farm Labor Relations Board, does not plan to act against "green carders" who are used as strikebreakers. The Schultz plan also would have built-in machinery to block strikes during harvest time.

◆ **Workmen's Compensation**—Bills have been introduced in the House by Chairman Carl Perkins of the House Labor Committee and in the Senate by Senator Jacob Javits (R.-N.Y.).

The bills differ, but both would provide that federal standards be substituted for state legislation. It is estimated that 20 percent of the workers in this country are not now covered by workmen's compensation and most coverage is entirely inadequate.

◆ **Unemployment Compensation**—Even with unemployment rising under the fiscal and monetary programs set to counter inflation, there is still no meaningful congressional action for federal standards as urged by labor.

Former President Johnson did ask extension of coverage to five million more workers and raising benefit levels and duration of benefits under a federal standards program. The Nixon Administration is expected to offer a program calling for federal standards soon.

◆ **Minimum Wage**—Measures have been introduced in both houses for raising the minimum wage to \$2 an hour as urged by organized labor. The Nixon Administration has taken no official position, although Shultz says he does not favor it at this time. The administration is considering a plan which would permit lower minimums for younger workers.

◆ **Situs Picketing**—This legislation has had bipartisan support for 20 years but has not reached the floor for a vote. It would give building tradesmen picketing rights equal to those enjoyed by other workers.

The Special Labor Subcommittee, under Rep. Frank Thompson (D-N.J.), has held hearings. The subcommittee has not yet acted and several executive sessions have been postponed.

The Administration supports the principle of situs picketing but insists that a number of conditions be attached which labor feels are not needed and are self-defeating.

◆ **Social Security**—There has been considerable top-level maneuvering in this field.

The Nixon Administration has come out for a seven percent increase in benefits. Former President Johnson urged 13 percent. Organized labor is asking for 50 percent.

There are also proposals for cost-of-living escalator clauses but, to date, no action has been taken on Social Security in either house.

Other domestic measures which are still in the legislative process which organized labor is closely watching include tax reform, education, housing, maritime administration, anti-pollution, postal corporation and postal pay and consumer protection.

Among the anti-labor bills introduced but not acted upon are those that call for putting labor under the anti-trust laws, a labor court to replace the Labor Board, a ban against industry-wide strikes, restriction of labor political action and steps to weaken union discipline.—PAI

## S.M.U.D. Organizing Campaign

(Continued from page 1)

R. T. Weakley requested formal acknowledgement as a "recognized employee organization" and on May 26, 1969, SMUD General Manager Paul E. Shaad responded by granting us that status.

To date well over a hundred new members have joined our ranks which not only has enabled us to gain recognition but has also given a tremendous boost to our negotiating committee. Our Committee consisting of Buford Bergin, Glen

Larson, Vic Mitchell and Ron Vierera have been working very hard to gain a good settlement for the members we represent and are very pleased to see that they have such excellent support.

From Business Manager Ronald T. Weakley and the Executive Board of Local 1245, to all those hard working organizers, many thanks for the superb job you are doing.

To all of those new members, welcome and thank you for helping us to help you.

# Truth In Lending Can Work For You

By Sidney Margolius  
Consumer Expert for  
the Utility Reporter

The new Truth-in-Lending law, effective July 1, is probably the most important ever passed for your protection as a buyer. It finally ends the nationwide deception by which virtually all lenders and sellers made their finance charges sound lower than they really are, and misled many families into paying high credit fees.

That is, the new law will end this deception for you if you make it work for you. It will end this deception in your locality generally only if local authorities, labor unions, credit unions, co-ops and other community groups, and you yourself, help police it.

For example, it was noticeable in Massachusetts, the first state to have its own Truth-in-Lending law, that it immediately worked better for middle-income families who dealt with banks and the more reputable stores, and for members of credit unions, than for lower-income families.

For one reason, some of the credit stores and used-car lots who do most of their business with lower-income buyers, would continue to misrepresent verbally and sometimes even broke the law openly in their newspaper ads.

For another, some consumers in the states that already have their own "truth" laws have not used this potential money-saver as fully as they could. During the first year Massachusetts consumers tended to be unaware or indifferent that sellers and lenders now had to disclose the true annual interest rate. A survey by Robert Pullen for the Boston Federal Reserve Bank found

most consumers were surprised at the size of the percentage when it was brought to their attention. But they appeared to be satisfied when lenders and sellers explained that they paid the same amount in dollars as before.

At least lumber and home-improvement dealers, and about half the furniture and appliance stores did report some customers complained and said they wanted to shop around.

Our advice is: Be surprised. Gasp. But don't be satisfied. The main value of the new national "truth" law is that for the first time you now have a simple yardstick to compare finance charges.

Up to now, different lenders and sellers stated their charges in different ways. A bank might say it was charging you \$7 a year per \$100 of the original amount of a loan. A credit union would say it charged 1 per cent a month on the declining balance; a loan company, 3 per cent a month; a department store, 1½ per cent a month. A furniture, appliance, or used-car dealer might say he was charging \$12 or \$15 a year per \$100 of your original balance.

Some unscrupulous dealers even have been known to say that they would charge you 1 per cent a month but then charge you 12 per cent on the original amount of the debt, not on the declining balance.

Now here is how these different rates and ways of stating them translate into true annual rates:

—The 1 per cent a month on the declining balance is the equivalent of a true annual interest rate of 12 per cent. (The actual dollar charge would be \$6.50 per \$100.)

—The \$7 per \$100 is the equivalent

of a true annual rate of about 14 per cent.

—The 3 per cent a month is a true annual 36 per cent. (The dollar charge would be \$19.50 per \$100.)

—The department store's 1½ per cent a month on revolving charge accounts is a true 18 per cent. (The dollar charge would be \$9.75 per \$100.)

—The installment or used-car dealer's \$12 or \$15 per \$100 on the original balance are approximately 24 and 30 per cent true annual rates.

The unscrupulous dealer's "1 per cent a month" charged as 12 per cent of the original amount, is really a true rate of about 24 per cent. (The dollar charge would be \$12 per \$100.)

Even some banks would say they are charging "6 per cent" when actually they were charging 6 per cent of the full amount of the loan, not on the declining balance. Since you pay back part of the loan each month, you really owe on the average only about half the original amount. Thus, 6 per cent on the original amount is really a true annual rate of about 12 per cent on your average balance.

Now that the new law requires all lenders and sellers to tell you the true annual rate without any arithmetic on your part, it's easy to know who charges you the least. In the above examples, obviously it is cheaper to borrow the cash from a credit union and bank.

Does it pay to comparison-shop credit charges instead of arranging for installment through the handiest place like the dealer himself? You bet it does, even though the dealer could prove to be a reasonable source. It might even dawn on

buyers'  
bailiwick

you that you could use some of your own savings which earn true interest of only 4 to 5 per cent.

You can pay anywhere from \$32.50 to \$81 in finance charges on a \$500 loan or installment debt to be repaid in 12 months, depending on where you arrange it. On a larger purchase like a used car you can save hundreds of dollars on finance charge.

For example, if you buy a late-model used car, and have a balance of \$1,500, you may pay a dealer a finance charge of \$10 per \$100 of debt. If you take three years to repay, your total finance charge is \$450. But if you borrow the cash for the car from a credit union or bank, your cost will be in the neighborhood of \$6.50 per \$100, or a total of \$292 for three years.

If you undertake to repay in two years, your finance charge, at the \$6.50 charge, totals \$195. Thus if you went to the lower-rate source, and increased your monthly payments by \$16 to pay off in two years, you would save a cool \$250.

One loophole we want to warn you about. The Federal Reserve Board regulations for Truth-in-Lending, which could be a little better than they are, require dealers and lenders to include in the annual rate any charges for credit life insurance or other insurance if this is a condition for giving you the credit.

But some loan companies and installment sellers press you to buy such insurance without saying openly that they won't grant the loan otherwise. If they do, go elsewhere.

## Federal Pollution Programs Short On Funds

Federal programs to curb pollution in the nation's cities are short on funds and long on built-in delays. With the 91st Congress at work on new legislative proposals, an informal survey of existing laws aimed at urban pollution shows these highlights:

◆ Of \$1.6 billion Congress authorized to combat water pollution through grants to local government in the coming fiscal year, more than \$1.2 billion has been dropped from appropriations.

◆ Air pollution standards required by a 1967 law are still several years from completion. Meanwhile it is estimated that air pollution by automobiles will more than double in the next 30 years under existing standards set by an earlier law.

◆ Pollution by garbage, refuse and other solid wastes apart from sewage is becoming a target of legislative proposals. A Senate bill introduced recently would provide \$833 million in the next five years.

◆ A noise abatement bill that would have outlawed supersonic commercial aviation has been reintroduced in the Senate, where the bill was rejected last year as Congress adopted the first federal controls on noise pollution.

Anti-pollution legislative efforts have been criticized as failing to provide funds to carry out programs created by the legislation.

To fight water pollution in the coming fiscal year, Congress authorized \$1.6 billion in grants, but appropriated only \$349 million. Construction of sewage treatment plants—the largest program of the Federal Water Pollution Administration—received \$214 million in appropriations of an authorization of \$1 billion.

Another criticism of federal anti-pollution efforts is that they take too much time. The Air Quality Act of 1967, described as the first federal law strong enough to curb air pollution, provides for various procedural steps that could lead to delays of more than five years before enforceable stand-

ards of air quality are in use. So far, a first set of federal guidelines on purity of air was issued this February, and others are expected no sooner than next February.

Meanwhile, regional boundaries for control of air pollution are being designated. Some regions have already been named, and by next summer 57 regions including 70 percent of the nation's urban population are expected to be named.

After that, federal officials will be empowered to act if a state fails to adopt air quality standards within 15 months of receiving the federal guidelines.

At the time this law was passed in 1967, only 14 of the states had adopted their own standards under authority granted to them 12 years earlier by the first federal air pollution law.

Pollution by automotive exhaust, first regulated by a 1965 law that has led to standards for automobiles since the 1968 models, is said by the Department of Health, Education, and Welfare to cause almost 60 percent of all air pollution.

Existing controls on automotive pollution, a Senate Commerce Committee staff report said, "will not stabilize, much less reduce, vehicular air pollution. . . . Under existing controls, automobile air pollution in the U.S. will more than double in the next 30 years because of the projected increase in both the number of vehicles and miles driven by each vehicle."

Disposal of solid wastes first came under federal legislation in 1965 when an air pollution bill was amended to provide funds to study ways to curb pollution from the burning of garbage in dumps and incinerators.

Legislation introduced by Sen. Edmund S. Muskie (D.-Maine) would authorize spending of \$833 million in the next five years to help local governments build waste-disposal plants and develop new ways to do away with garbage.—Congressional Quarterly.

# The Safety Scene

## YOUR HANDS

Have you ever marvelled at:

- . . . the strong hands of an all-star quarterback as he whips a perfect forward pass far downfield to a waiting receiver?
- . . . the sure hands of a bricklayer as he lays row upon row of bricks all straight and true?
- . . . the potter's hands that shape and reshape the wet, formless clay into a thing of beauty?
- . . . the agile fingers of Van Cliburn as they dance over the keyboard of a concert piano?
- . . . the firm hand of a friend clasped in a handshake?
- . . . the soft, comforting hands of a mother as she quiets her child?
- . . . the hands that help you dress, wash, shave, write and feed yourself?
- . . . the hands that help you drive your automobile?
- . . . the hands that perform manual tasks of all kinds?
- . . . YOUR HANDS

They're quite a creation. Nothing man has yet engineered has been able to duplicate them for sheer dexterity, versatility, or adaptability in the performance of so many different tasks.

Biologically, man is a pretty defenseless creature for his size. He has no long canine teeth, no claws, no tough protective hide. He has, however, opposable thumbs and fingers—a feature that has made him master of the earth.

He can pick up and manipulate tools and weapons. Without his hands, he's a thinking, walking, speaking person. WITH HIS HANDS, he's a thinking, walking, speaking, and DOING person. He can do thousands and thousands of different things with his hands . . . IF THEY ARE NOT INJURED.

WATCH THEM . . . GUARD THEM . . . PRIZE THEM. THEY'RE THE ONLY ONES YOU'LL EVER HAVE. DON'T TAKE CHANCES WITH THEM. PROTECT THEM IN ALL WAYS . . . AND THEY WILL ALWAYS SERVE YOU FAITHFULLY.

## RESPIRATORS

The cartridge-type respirator is the one most commonly used—frequently when spray painting. This type of respirator is designed mainly for short-term operations. These respirators are approved for low concentrations of contaminants, not to exceed 1,000 parts per million parts of air or 0.1 of one percent.

Remember that a cartridge-type respirator **does not generate breathing air**. The following should be observed when wearing a cartridge-type respirator:

1. Never enter a confined space with a cartridge-type respirator.
2. Never work in a high concentration of toxic vapor with a cartridge-type respirator.

Always do the following when using cartridge-type respirator:

1. Be sure your respirator contains good fresh cartridges suitable for your job.
2. Be sure your respirator fits your face. Your foreman will help you obtain a good respirator fit.
3. Wash your respirator daily with soap and water. Dry after washing.
4. Take good care of your respirator. Do not loan it to other employees.

At a future tailgate meeting, we will discuss the three remaining types of respirators and their correct use. These types are:

1. Cannister-type respirators.
2. Airline respirators.
3. Self-contained breathing apparatus.

## Safety Habits Should Come Naturally

Safety is a funny thing. Dumb animals take to it naturally; it is born and bred right into them. But man, who is supposed to be way on top in the social order often thinks that only "sissies" practice safety.

It is said that beavers always detail one of their number to watch out and warn the rest of the animal tree choppers when the tree is about to fall. Yet, how many times do experienced drivers fail to take similar precautions and ask for assistance when backing into a tight spot?

Ducks fly in a "V" formation for safety, and it is said that if any source of danger is spotted a scout

flies out to investigate. Yet how blindly we human beings often walk or drive into danger.

If you have ever gone crow hunting you know that it is almost impossible to get a good, close-range shot at the flock. Why? Because they have sentinels placed at advantageous spots and these warn of man's approach.

A woodchuck always digs two, three, or more holes to his burrow so that if an enemy does come after him through one he has a choice of backdoor exits.

A wren won't build its nest in that nice little bird house you hang up in the back yard unless the en-

## Industrial Unions Renew Safety Push

There will be no reduction in the mounting toll of on-the-job deaths, injuries and illnesses until Congress enacts strong federal standards for safety and health in the workplace.

That was the consensus of labor leaders, health and safety experts and government officials addressing a conference sponsored by the AFL-CIO Industrial Union Department in Washington.

Nearly 50 representatives of 45 unions attending the two-day meeting also were told that Congress will act if union members across the nation exert a "maximum effort" on behalf of the legislation.

President Johnson last year called for federal standards in his proposed Occupational Safety & Health Act. But the legislation died after the National Association of Manufacturers and other employer groups mounted a nationwide campaign against it.

Senator Ralph Yarborough (D-Tex.) and other lawmakers have introduced legislation in this Congress similar to Johnson's measure. The Nixon Administration has indicated it will also submit an occupational health and safety bill.

Major speakers at the conference included IUD President I. W. Abel; Yarborough; Esther Peterson, former assistant secretary of Labor and now legislative representative for the Clothing Workers, and Rep. James G. O'Hara (D-Mich.).

In opening the conference, Abel said "I know of no more important issue demanding our attention and concern" than securing passage of occupational health and safety legislation.

He pointed out that 100 workers "will lose their lives in work accidents while we are meeting here." The economic waste and the tragedy of broken bodies, heartache and family suffering is beyond comprehension, Abel declared.

trance is so small that it will keep out larger birds.

Many of us remember back in the horse and buggy days when you couldn't whip Old Dobbin into crossing a rickety bridge that looked unsafe to him.

Now it never occurs to us to call an animal a coward or "sissy" just because it takes all these precautions. In fact, we give it credit for being pretty smart. Yet many of us scoff at the safety precautions taken by man.

It makes one wonder sometimes if we aren't really the ones to be placed in the "dumb animal" class.

He charged that many employers put profits ahead of human life by refusing to install safety measures and asserted that the government has not placed a high enough priority on saving lives and protecting the health of workers.

Yarborough, addressing a dinner meeting, described the features of his bill which would give the Secretary of Labor powers to set and enforce safety standards; provide for research, training and special safety education drives; and encourage states to establish their own safety programs.

Only a handful of states have meaningful safety laws, Yarborough said, with most existing statutes calling for voluntary compliance, "and you know how anxious management is to voluntarily spend money to protect employees."

The Texas senator deplored the lack of general safety inspectors, noting that their total in state and federal employment averages out to about 17 inspectors for each state in the union.

Calling for a nationwide campaign by unions to educate their members to the need for federal legislation, Yarborough declared:

"It's no longer time for philosophical discussion. It's time to pass a law. It will be a fight and we can win it."

Mrs. Peterson, who was a leader in the Johnson Administration's effort to win enactment of federal health and safety standards, spoke on the pitfalls that were encountered in last year's drive and can be expected to show up again this year.

She accused the NAM and employer groups of blanketing the country with misleading letters and statements in opposition to the legislation after their representatives had previously agreed to a compromise version of the original bill.

"If we are to see passage of an occupational health and safety bill this year, we must campaign equally as hard as our opponents will be campaigning," she emphasized.

O'Hara, a main sponsor of the health-safety legislation in this and the last Congress, spoke at a luncheon held in connection with the conference. Like Yarborough, he stressed that passage of the measure is overdue and requires a full labor effort.

A panel of medical experts described the "silent enemy" of workers—a horrifying line-up of occupational diseases such as lung cancer that result from the largely uncontrolled use of toxic chemicals in industry.

Editor's note: The above article is from the June 13 issue of the San Diego Labor Leader.