

OLEUM REFINERS
ACHIEVE MILLION
SAFE MANHOURS

October-November 1953

On Tour

WITH UNION OIL COMPANY OF CALIFORNIA



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WHY AREN'T GASOLINE PRICES HIGHER?

"ON TOUR", pronounced "on tower," is an oil field expression meaning "on duty." Our magazine by that title is published monthly by Union Oil Company of California for the purposes (1) of keeping Union Oil people informed regarding their Company's operations and progress, and (2) of recognizing and encouraging the fine accomplishments of employee groups and individuals. We invite communications from our employee readers, whose thoughts, interests and opinions are carefully weighed in determining editorial policy. Address correspondence to ON TOUR, Union Oil Building, 617 West Seventh Street, Los Angeles 17, Calif.

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"Taking Stock Unionwise"

Partial reprint of an editorial appearing in the August issue of *The Electrical Workers Journal*

"WE spoke of taking stock with regard to the international picture. It is often wise to pause and take stock nationwide, and in our case unionwise. And this last is what we want to try to do in this editorial.

"In June, we attempted to call our people to task on the bitter, controversial matter of Overtime, and bring them a warning. This month we have other observations and warnings. Sometimes they are hard to make, but your International Officers would not be honest, we would not be doing our duty, we would not be earning the salary which you pay us, if we did not call the plays as we see them.

"Organized labor is losing ground in many sectors. Why? Anti-labor legislation? Pressure of the Taft-Hartley provisions? Yes, in some cases. But in some other cases, organized labor is its own worst enemy. By demanding too much of employers, by demanding fringe benefits and overtime which cost so much the employer cannot afford to pay and still make a profit, by limiting production, union men and women are losing ground and throwing jobs and contracts to non-union members who are less deserving, but also less demanding.

"We do not say this situation is widespread, Brothers and Sisters. For the most part our members work hard every day and have a real consideration, not just for their own wages and conditions, but for the prosperity of the firm and the employer for whom they work.

"But the situation we spoke of does exist, and it exists in the electrical industry. And we warn you now to watch it and to stop it.

"We often quote Samuel Gompers. He was a wise man who spent his life making statements to help members of organized labor and backing them up with appropriate action. But here's something he said that isn't often quoted:

"THE WORST THING THAT CAN HAPPEN TO LABOR IS FOR THE EMPLOYER NOT TO MAKE A PROFIT"

"Remember, Brothers and Sisters, that it's still the right, the just, the honorable thing to 'give a good day's work for a good day's pay,' and when any member of organized labor forgets that, he is stealing, whether his conscience tells him so or not.

"Everyone of us wants more money and more advantages for ourselves and for our children. We wouldn't be human if we didn't. And ambition is healthy for us all, but indications point to the fact that labor's next major gains must come from increased productivity.

"We of organized labor earnestly desire labor-management cooperation. We want free collective bargaining. Well, we must never forget for an instant our part, the labor part of labor-management cooperation. We must have the employer's interests at heart if we expect him to have our interests at heart.

From left, Gene Tyler, Lewis Parr, Clarence Pedersen, John Skehen, Kay Harper, Henry Meiners and Frank Maderos, who also appear on THE COVER, are seen raising the National Safety Council banner at Oleum—indicative of the refinery's million manhours without a lost-time accident.



OLEUM REFINERS

Achieve Million Manhour Mark

IN BID FOR COMPANY SAFETY RECORD

SATURDAY, September 19th, was "Green Cross" day at Oleum Refinery. It marked the attainment for the first time in Oleum history of a plant-wide million manhours worked without a lost-time accident. Approximately 900 employees are credited with the accomplishment. In working more than 200 days without a disabling injury, they performed a feat equal in merit to that of four persons working safely for a period of 50 years each.

That there was no shouting or blowing of whistles when the millionth hour had passed was not due to a lack of enthusiasm. Everybody at Oleum was deeply interested and proud. However, they were wisely aware that too much emphasis on the million mark might result in a let-down of effort and alertness. For safety records seldom just happen; they're made!

Actually, Oleum people are aiming well beyond a million. If they can stretch it to 1,208,000 accident-free-manhours, they will have a new Union Oil refinery record. If they can reach 2,000,000 manhours, the present Company-wide record will be surpassed. and if—well, wouldn't it be great to work in the world's safest refinery?

Oleum's fine achievement brings to five the number of million man-hour marks that have been attained or

improved upon by Union Oil groups during 1953. The Accounting Department and Laboratory group at Oleum each reached that crest earlier this year and have continued on, without a lost-timer, to help establish the plant-wide record. Los Angeles Refiners attained their millionth safe manhour in May, but were obliged to start from zero again in June. Research & Process people are envisaging a 2,000,000 manhour record, having moved into their fourth year without a disabling injury. Aided greatly by these and other safety-minded groups, the Company as a whole has a year-to-date accident frequency of 5.2 per million manhours worked—by far the lowest frequency in Union Oil history.

Based on statistics and averages, Oleum Refinery during the past seven months of operation should have had about six lost-time accidents instead of none. What has happened among these 900 employees to confound the statistics and statisticians?

There's no better source of information than the record makers themselves. So let's walk out through the plant and put this question to a representative group of Oleum people:

"How do you account for the present safety record at Oleum?"

answers

JOE PHILLIPS, Compound-Shipping Dept.: "Our men here in the container storage area have to be alert continually, because barrel handling can be hazardous. Also, most of our men are new with the Company. But a 10-minute safety meeting every morning starts everybody off right and has helped to fence off the hazards and accidents."

MONDO GEMIGNANI, Compound-Shipping Dept.: "It seems that we are just more safety conscious. Our safety meetings, with their illustrated talks and motion pictures, are very interesting and effective. We not only discuss our problems and hazards at these meetings but seem to use the advice to better advantage on the job."

DENNIS McCLELLIN, Distillation Dept.: "For our safety record I give credit to better training—to the fact that we have a crew of steadier men, who have been on their jobs longer and know how to work safely—and to the fact that the Company has been prompt to follow up on safety suggestions made by our men."

DONALD BELLO, Distillation Dept.: "I believe pretty much that it is the individual worker who causes an accident. So, we have all had to take our individual share of the responsibility. I think we'll break the record."



PAUL HACKNEY, Maintenance Dept.: "For one thing, the union is taking a more active interest in safety. The fact that union and Company leaders are working together toward safer working conditions has greatly improved the employees' thinking toward safety."

EDITH BAKER, Inspection Lab.: "During my 10 years with Union Oil I have had to work daily with glass materials and steam—two hazardous substances. But, through properly following safety instructions, I have never had a lost-time accident. It seems to me that all Oleum people have been more careful during recent months."

LEE HARVELL, Bulk Dept.: "The Company has done about all that can be done to keep equipment and facilities in good working condition. In addition, we have gotten the safety program across to our fellow workers better than ever before. We feel that safety is part of the job."

ARTHUR OWENS, Maintenance Dept.: "Four of us have worked here on the coke pile with heavy equipment for 13 years—and without a lost-time accident. I give the credit to safety meetings and a very cooperative foreman."

JOHN LIVINGSTON, Maintenance Dept.: "It is part of my responsibility as a foreman to preach and practice safety. In our safety meetings the crew make many good suggestions, and management is quick to offer help."



LARRY RAY, Treating Dept.: "Good housekeeping habits tie directly into safety records. There has been a lot of emphasis lately on eliminating spills and untidiness. By keeping the refinery clean, we are keeping it safe."

MATT BARULICH, Maintenance Dept.: "Our many safety reminders—including meetings, posters, signs, warnings, and so on—have pointed out a safe and sane approach to every job. Also, every one of us has had a keen desire to establish and continue the safety record."



FRANK CROOKES, Fire & Safety Dept.: "I think the good safety record is due to fine cooperation between the foremen and line workers. The foremen devote a lot of energy in showing their men how to do a job safely. They also see that the best equipment is made available."

AL OHLSON, Clerical Dept.: "Here in the grease-making department of refining I face hazards a little peculiar to the normal clerical assignment. But a record of 19 years without a lost-time accident keeps me on guard. Similarly, I believe everyone at Oleum is conscious of the plant's fine record and is eager to carry on."



FRED ANDREWS, Compound-Shipping Dept.: "Pointing out to new employees such simple dangers as the sharp edges of a bucket lid has helped to hold our lost-time accidents to zero. And obviously good housekeeping pays big dividends in a grease packaging area."

RUBY SELF, Production Accounting: "Our people have become much more safety conscious. They talk safety frequently and, even if they only jest about it, it shows that their minds and subconscious reactions are on the right track. The refinery is a haven of safety compared with getting across that highway to my car daily."



CHARLES COOK, Bulk Dept.: "Actually, everyone in the refinery seems to have caught the spirit of working safely—this has become more evident as our accumulated manhours have increased. And there is no let-down now that we have reached a million. Our objective is to keep the ball rolling."

SMOG

What Is It?
What's Being
Done About It?

What the Oil Refineries Are Doing About It.

by Charles N. Pollak

Reprint from PETROLEUM WORLD and OIL

LOS ANGELES—There are still a few oldtimers around Los Angeles who recall the days when they could clamber up on high ground and expect to see Catalina Island in one direction and the snow-capped San Gabriel Mountains in the other.

Those were the days when no one knew what temperature inversion was and the word, "smog," if it was heard at all, was regarded as a quaint expression of climate-weary Londoners.

Actually, even back in the days before Angelenos lost their sense of humor about smog, two of the three factors that cause it were present. One was topography. The other, climate.

The county is ringed on three sides by a high mountain wall. The ocean is on the fourth. The climate was and is a lazy one, with gentle winds rarely exceeding 10 mph wafting in from the Pacific.

The third factor—population—came later. By the late 1930's, there were enough people and industrial installations in the county so that people began to notice that on certain murky days it was impossible to see the mountains. Later, during the war years, their eyes, noses and throats confirmed the existence of an irritating haze in the air.

By 1947, people were plenty mad. They got the State Legislature to authorize establishment of a Los Angeles County Air Pollution Control District to go ahead and get rid of the smog.

But by then the county was in the midst of one of the greatest industrial and residential expansions in the nation's history. It became apparent to air pollution control authorities that they would be hard pressed to keep pollution from getting worse, much less make progress in reducing it.

At first smog, like the weather, was a phenomenon that everyone had an opinion on. The main change in Los Angeles since pre-smog days had been the influx of people and industry, so scapegoats were sought haphazardly and often on an emotional basis.

Thus, industry was widely blamed for the polluted atmosphere. The oil industry, in particular, bore the brunt of the accusations because anyone driving past a refinery could see smoke rising from exhaust stacks and smell various refinery odors. And that was all many needed to convince them where smog originated.

The community then entered into a phase of accusations and counter-accusations, with each accused activity attempting to shift blame to the others. The oil industry alone, with a tradition of statesmanship and a highly developed sense of public relations, took a good look at itself and asked, "Are we contributing to smog?"

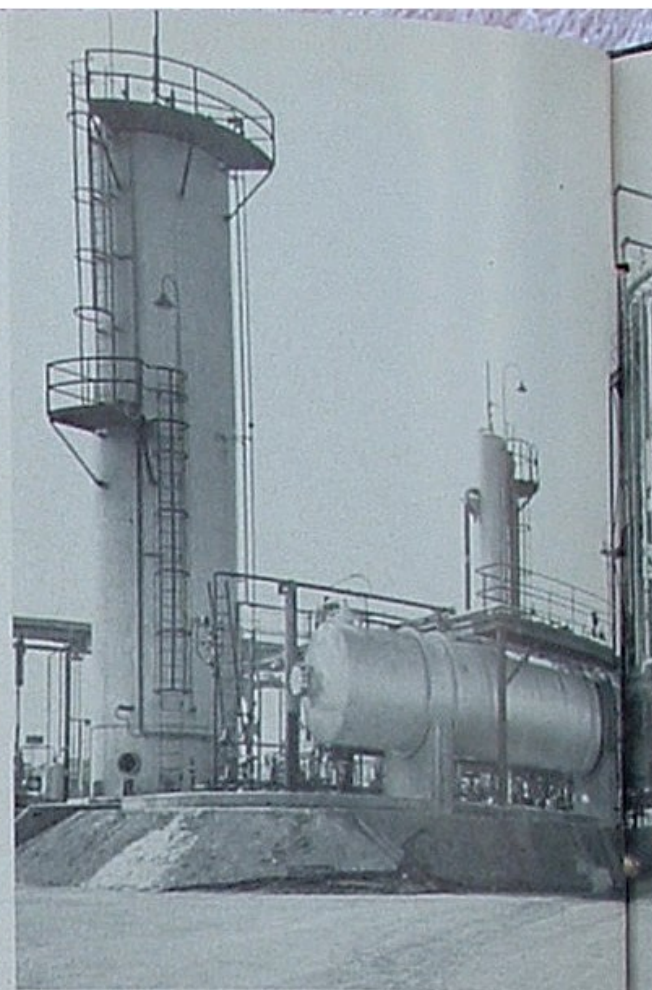
The industry found (1) nobody knew what smog was, and (2) nobody knew what was causing it.

It was determined to find out. Accordingly, in 1947, acting through the smoke and fumes committee of the Western Oil and Gas Association, the industry commissioned the Stanford Research Institute to answer five questions:

(1) What is smog? (2) Why is there smog in Los Angeles? (3) What reduces the visibility? (4) What causes eye irritation? (5) Where do the air pollutants come from?

Since that time, the institute has spent over \$1,000,000 in a sustained effort to find

Our Sulfur Unit, left, at Los Angeles Refinery salvages up to 45 tons of sulfur daily, which, if burned as a waste product, would release about 90 tons of sulfur dioxide to the atmosphere. This and other smog-prevention measures at the refinery are considered almost 95 per cent efficient in preventing our sulfur-dioxide pollution of air.



the answers. As a result, along with the Air Pollution Control District, it has built up a tremendous body of knowledge on air pollutants.

SRI put crack teams of chemists, biochemists, physicists, meteorologists and economists on the assignment and gave the industry the best research team work that money could buy. It promised no panaceas and has come up with none, but at the same time has immensely amplified man's knowledge of the atmosphere and the substances that can contaminate it.

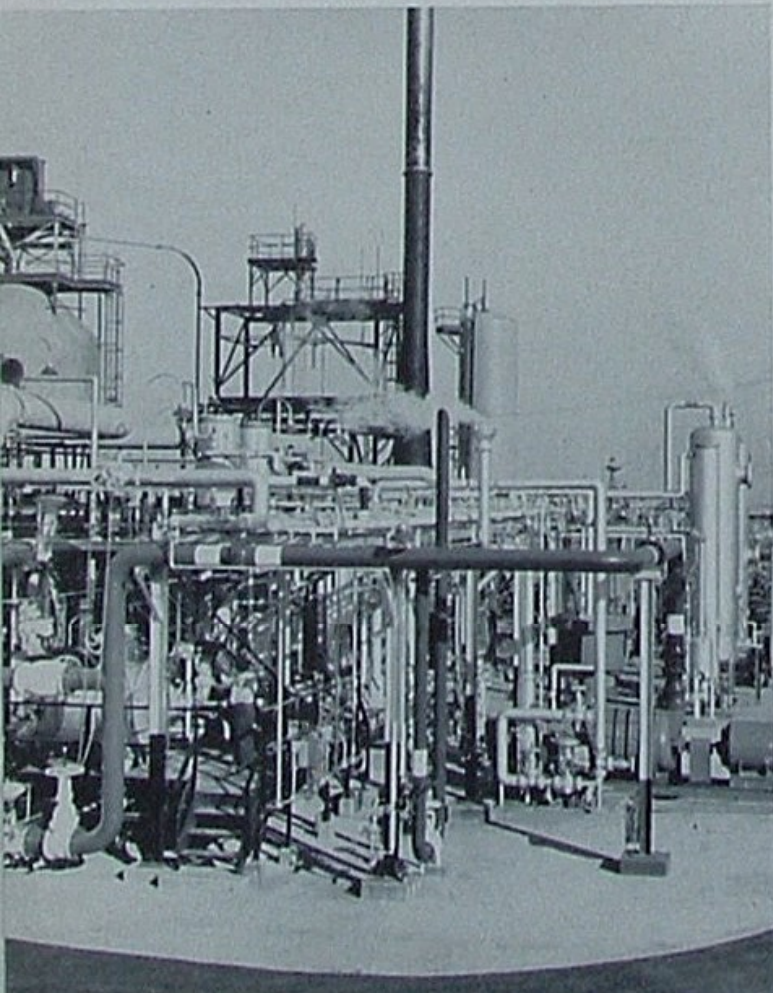
As is so often the case in scientific inquiry, SRI discovered that air pollution is infinitely more complex than was originally believed. And logically, the more its researchers learned about the subject, the more they realized remained to be learned.

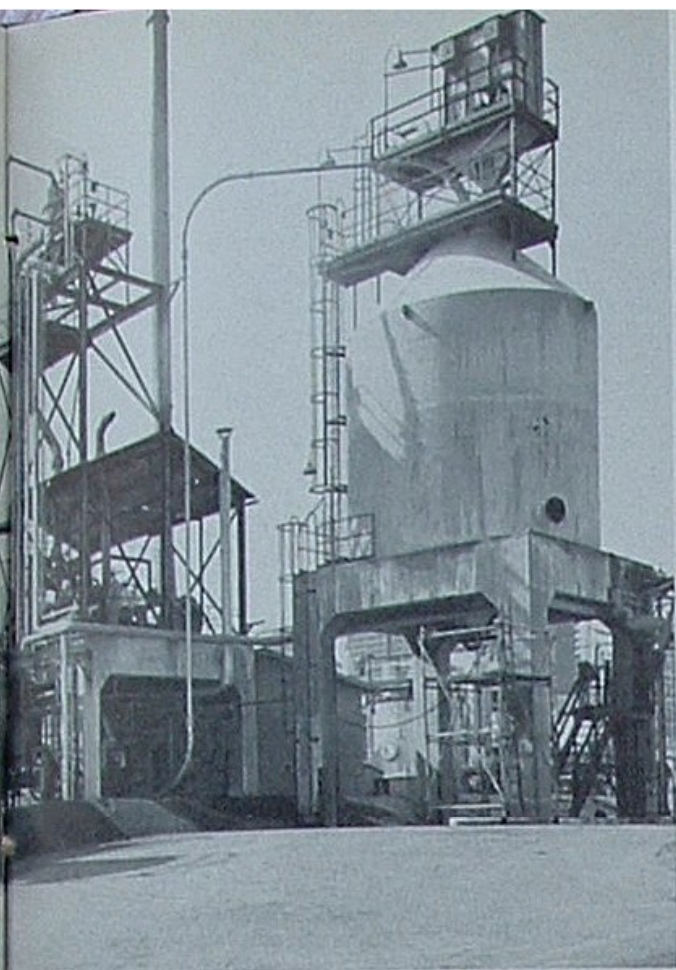
A Community Problem

One of the basic findings of the teams was almost classic in its simplicity. "Smog," the institute reported, "is a community problem. It can be abated only by community action." It went on to explain that since the topographic and climatic causes of Los Angeles smog were hardly susceptible to change, it remained for man, his machines and his industries to do the changing necessary for air contamination to be reduced.

One institute economist pointed out that this could be done in four ways; 1) change manufacturing processes, 2) collect or treat offending substances before they are released to the atmosphere, 3) adjust operations to the weather to keep contaminants from populated areas, 4) move or close offending sources.

He continued: "If we are to attack successfully the problem of air pollution in our industrial cities, we must achieve a minimum control level (perhaps a 75 per cent recovery) at a reasonable cost. This net cost cannot exceed a small fraction of





Knowing that Los Angeles smog is more vulnerable to action than to vocal denunciation, the petroleum industry, including Union Oil, has taken aggressive steps to put its house in order. Los Angeles Refinery's Ammonium Sulfate Unit, left, with smog abatement as a chief factor in its construction, is preventing the release to atmosphere of six tons of ammonia and 12 tons of sulfur dioxide daily.

a per cent of total production costs. A community, in its desire to abate air pollution, cannot afford to disrupt the normal cost-price relationships, nor can it afford to stifle industrial development."

SRI Contributions

While SRI has not come up with final answers to the questions posed by the industry, it has made tremendous inroads on a problem that was an intricate scientific puzzle from the outset.

The institute discovered or helped discover that:

1) Smog in Los Angeles is caused by a mountain wall ringing three sides of the county, and extremely light winds that inhibit horizontal escape of contaminated air; and a temperature inversion or layer of hot air at about 1,500 ft. which can act as a sealed roof over the county to prevent vertical dissipation of the polluted air.

2) Smog is a complex mixture of gases, liquid droplets and solid particles, the two latter invisible to the naked eye. Some of them react in sunlight to form additional irritants. The nature of these reactions is one of the principal objectives of current SRI research.

3) The decrease in visibility is caused by the solid and liquid particles.

4) The eye irritation is caused by the gases, but not by any one contaminant from a single source.

Mass Burning Blamed

5) Half the pollutants come from industrial sources, half from activities of the general public such as operating motor vehicles, using incinerators and heating homes and buildings. Irritating gases come from the burning of 50,000 tons daily of fuels and rubbish, equally shared by the public and industry, and from evaporation of a number of chemicals including hydrocarbons. This combustion and evaporation release up to 2,000 tons daily of organic

irritants or potential irritants into the atmosphere.

6) These organics constitute an airborne chemical reservoir that becomes smog in varying degrees depending on the time it has been aloft, the amount of sunlight and the weather.

The institute also developed new instruments for monitoring the air and new techniques for analyzing it; designed a smog chamber in which Los Angeles-type smog could be manufactured artificially; and learned to predict smoggy days with accuracy.

Like the Air Pollution Control District, it has singled out the automobile as a major source of pollutants and as a vexing problem yet to be solved.

Medical Research Needed

While the institute's assignment has not called for it to venture into the field of smog control per se, some of its reports have included constructive comments harking back to its thesis that smog is a community problem. One called for medical research which might demonstrate that smog is harmful to the health and thus spur the public's desire to reduce contamination. Another stressed the need for improved engine and combustion process design to produce cleaner effluents. Still another suggested that an objective, scientific smog index which would indicate the intensity of pollution from day to day would keep the public in touch with progress made in abatement.

Finally, institute scientists have repeatedly pointed out that smog control, far from being a purely scientific problem, has deep political and economic implications. A prime example is the household incinerator, a known, yet tolerated smog offender. There are political barriers to enforcing a ban on the residential incinerator, and economic problems to solve before a rubbish collection system can be established to replace the home burner. The same will hold true for motor vehicle exhausts if and when a device to decontaminate them is placed on the market.

No amount of money spent on air pollution research can alter the public's direct

responsibility for well over half of the sources of contamination. Thus, the conclusion is inescapable that the individual, along with industry, must do his part in the common effort to control the nuisance that in the span of a single decade has become a civic disgrace.

LOS ANGELES—The petroleum industry in Los Angeles County is picking up the tab for smog control in an amount which will exceed \$17,000,000 by mid-1955, according to a Petroleum World and OIL survey, completed this week, of the county's eight largest refiners.

A breakdown of the sum looks like this:

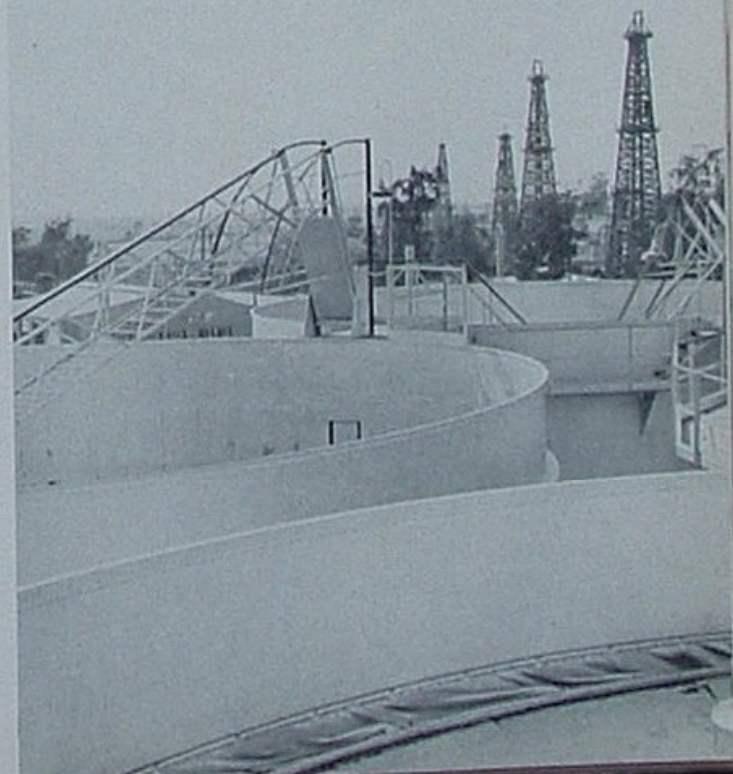
Oil companies here plan to spend about \$4,110,000 during the next two years to comply with the recently enacted Rule 56 of the county Air Pollution Control District.

Up to the time the regulation was drawn up in May of this year, the industry, on its own, had expended or allocated approximately \$12,067,491 for measures calculated to reduce the volume of hydrocarbons released into the atmosphere.

From 1947 to date, the industry's Western Oil and Gas Association had spent over \$1,000,000 to finance a Stanford Research Institute inquiry into the nature and causes of smog. In addition, individual companies have devoted countless hundreds of thousands of dollars of executive time and laboratory work to air pollution control.

The survey showed that the eight oil companies plan to take steps to control vapor emissions from 183 storage tanks at refineries, terminals, tank farms and bulk

Floating roof tanks at our Rosecrans Terminal, and elsewhere throughout Los Angeles County, are minimizing the escape of light petroleum vapors—said to be one of the causes of eye irritants in smog. All new tanks for storing gasoline are so equipped and many older units are being similarly re-roofed to seal off sources of smog.



plants in the county. Rule 56 (text in *Petroleum World and OIL*, May 14, 1953) requires control of tanks of 1,000 bbl. or greater capacity containing gasoline or other petroleum distillates having a vapor pressure of 1½ psi absolute or greater.

While some of the concerns have not yet completed engineering studies aimed at finding the most efficient method of controlling the tanks, tentative replies to the survey's questions showed that 97 tanks will be fitted with floating roofs. Another 22 will be tied into existing vapor recovery systems.

New Vapor Recovery Systems

Preliminary data indicate that at least 6 new vapor recovery systems will be constructed. The survey showed that additional control methods are contemplated. One company is interested in the pan-type floating roof and is evaluating losses from tanks so equipped to see if the device meets district requirements. The same company is also making a study of manifolding of vapor spaces of two groups of small tanks as a means of control.

Another company reported that some vapors will be incinerated to prevent their escape to the atmosphere.

The companies were asked if the design of any of their new refinery units would be changed to include so-called smog control devices. The replies were virtually unanimous in stressing that good conservation practices would make changes unnecessary. "It has been a long-standing policy of our company, for conservation reasons," one company wrote, "to store crude oil, gasoline, and other light hydrocarbons in floating roof tanks, pressurized storage, or in tanks equipped with vapor recovery systems. Therefore, it will not be necessary to change designs for presently planned construction. . . ."

Another company said: "As new plants are built, fume elimination facilities are made a part of the project and approved by the Air Pollution Control District. This practice is also followed in our refineries outside Los Angeles County where no air pollution control district exists. The company is extremely conscious of its responsibility in being a good neighbor in the communities in which it operates and in providing agreeable working conditions for its employees."

How About Pay-Out?

In contrast, a difference of opinion was evident on the question, "Does the company believe the projects (under Rule 56) will pay-out in a reasonable length of time?" Of the eight largest refiners in the county, three—representing 39 tanks to be controlled—replied with a flat "No." Three others—representing 49 tanks—said the pay-out would require about eight years, or otherwise indicated that it would be reasonable.

Two additional companies—accounting for 85 tanks—found it necessary to qualify their answers. One, with 49 tanks requiring control, said "Although some of the projects will pay out in five to ten years, most of them will extend beyond that." The other, with 36 tanks, wrote, "Pay-out time cannot be determined but is probably quite long."

An interesting commentary on the attitude toward pay-out of the latter company is afforded by the fact that it is planning to install floating roofs on 57 additional tanks not covered by Rule 56, for both vapor control and fire prevention purposes.

\$30,000 Per Roof

An idea of the expense involved in some of these measures is gained from the fact that a typical conversion of a tank from cone roof to a floating roof can be expected to cost around \$30,000 for a 120-ft. diameter, 80,000 bbl. tank.

In a statement accompanying the announcement of Rule 56 in May, Gordon P. Larson, director of the county Air Pollution Control District, estimated its cost to all the companies affected at between \$7,000,000 and \$8,000,000. Although *Petroleum World and OIL's* survey demonstrated that this estimate may be on the low side, even the total ultimate cost of compliance is dwarfed by the heavy outlays voluntarily made by the industry outside the scope of any governmental regulation.

For instance, the eight largest refiners reported an average outlay of \$1,500,000 each in recent years for control devices. At the same time, they emphasized that neither these measures nor the industry's willing compliance with the district's regulations should be taken as a tacit confession of responsibility for Los Angeles smog. "We feel that great care should be taken," one company stated, "to avoid giving employees or the public the impression that our efforts are an admission of guilt and that, therefore, we alone are responsible for smog."

Control Methods Vary

No particular pattern was followed by the companies in these outlays. An idea of the magnitude of their pollution control programs is given by the following list of anti-smog measures already taken, as culled from their answers to the survey:

- 1) floating roofs, 2) skimming pond roofs, 3) vapor recovery systems, 4) H₂S removal systems through gas scrubbing, 5) smoke indicators and alarms, 6) smoke-free trash incinerators, 7) dust collecting devices, 8) emergency vapor release flares, 9) Systems for disposal of odoriferous chemical fumes, 10) incineration in fire-boxes of vapors from stills, 11) sour water and spent caustic treating plants, 12) ammonium sulfate plants, 13) weather stations with complete instrumentation, and 14) sealing of pump packing glands.

Some individual company efforts were

especially notable, including, for example, installation of floating roofs on 46 tanks in a single refinery, construction of refinery weather stations that provide valuable atmospheric data to the air pollution control authorities.

Cat Cracker Dust Minimized

One company spent \$250,000 for extra dust removal equipment on a new fluid catalytic cracker in order to cut its release of dust to the air to less than half a ton daily—out of 70,000 tons of catalyst circulated in the unit each day.

Other companies reported construction of ammonium sulfate plants to utilize ammonia produced from the catalytic units. This resulted in elimination of nitrous oxide, a combustion product of ammonia, from refinery stack gases and the sulfate manufactured as a by-product.

Several concerns said they took the initiative in originating vapor control measures for crude oil tanks, although these have not been covered by any district regulation. (*Petroleum World and OIL* has learned, however, that district officials are now studying feasibility of a rule covering crude storage facilities.)

\$66,000 Per Ton of Impurities

Compliance by the industry with provisions of Rule 56 is calculated to remove about 120 tons out of the 140 tons daily of contaminants which the district reported as emanating from storage tanks. Thus, with the rule costing the industry a minimum of \$8,000,000, the companies will be financing removal of the presumed contaminants at the rate of \$66,000 per ton.

This, to be sure, is anything but a bargain for refinery effluents. The companies, nevertheless, feel it is worth paying with a smile if it actually buys even a minimum of smog abatement for Los Angeles, and if—once and for all—it relieves the industry from its unwilling role as scapegoat-in-chief for every impurity at large in the Southern California air.

With the active co-operation of the Southern California oil industry, Los Angeles County's official smog fighters are about to chalk "one down, four to go" on their current smog-abatement scoreboard.

Step one was enactment in May of the county Air Pollution Control District's Rule 56, an order aimed at controlling evaporation of vapors from 495 presently uncontrolled tanks of 1,000 bbl. or greater capacity at refineries, tank farms and terminals in the metropolitan area.

The rule was amicably worked out over a period of many months between district engineers and oil company representatives. It establishes enforcement deadlines ranging from Feb. 1, 1954, to May 1, 1955.

Pointing out that the unequipped tanks are responsible for only 140 tons of the estimated 1,800 tons of pollutants emitted daily into Los Angeles' congested atmosphere, district officials hailed the rule as

an opportunity for the oil industry to vindicate itself in the eyes of the public. Compliance with Rule 56, they explained, would place the refiners in the position of having done everything asked of them by the governmental smog control body.

Oil Industry Off the Hook

After that, they indicated, the public's anti-smog indignation will have a chance to be directed against the remaining outstanding sources of air pollution.

Gordon P. Larson, the mild ex-Army engineers colonel who has served as the district's director since 1947, sketched out his attitude for *Petroleum World* and *OIL*. "Completion of the work under Rule 56 within the refineries," he said, "will for all practical purposes finish the job of reducing contaminants from that source, and our major emphasis will turn to the automobile as far as hydrocarbons are concerned. The only major remaining smoke problem in the county will then be the burning of household rubbish."

Four More Steps

He said the district's next four steps would be:

1. Study of the desirability of covering tanks of less than 1,000 bbl. capacity with an anti-evaporation order similar to Rule 56, which applies to gasoline and other volatile products.

2. An order aimed at reducing the emission of noxious vapors from automobile and truck exhausts.

3. An order eliminating about a million household incinerators from the county's back yards.

4. Enunciation of a policy incorporating the principle of air pollution control in zoning for industry.

Views on Small Tanks

Larson emphasized that he is completely open-minded about the practicability of an order affecting the thousands of small tanks—including service station underground storage—within county borders. A necessary preliminary, he said, is a census of all such tanks to show how big the job will be.

Then, within a year, he said, the district will make up its mind whether or not to issue a small tank rule.

Meanwhile, Larson's technical staff is looking into the types of devices which might be used to cut down on product losses from small tanks. They are thinking in terms of an inexpensive device which would return vapors from a tank being filled to the source of the product. While they have not yet contacted equipment houses, they believe such a device could be manufactured at a reasonable cost and installed easily.

Automobile Exhaust Gases

Larson's figures show that the small tanks are responsible for at least as great—and possibly greater—a tonnage of contaminants as the 45 large tanks. The dis-

trict estimates these tonnages by the amount of gasoline—3,500,000 gal. daily for automobiles alone—sold in the county.

The anti-smog chief said the oil industry had already eliminated 100 tons daily of pollutants on its own prior to enactment of Rule 56. Hydrocarbon contaminants, he said, amounted to about two-thirds of the 1,800-ton total. He said the district's research had shown that the hydrocarbons contributed to eye irritation and crop damage, but had nothing to do with the decrease in visibility that is so annoying to long-time residents.

Larson freely admitted that mere issuance of an order will not solve the vexing problem of pollutants emanating from the 2,100,000 motor vehicles operating in the county. The district accordingly has spent considerable time testing a variety of anti-smog mufflers and similar devices designated to suppress, transform or somehow eliminate the irritants that flow so copiously from Los Angeles tail pipes.

The inventors have not yet succeeded in producing a gadget that would be (1) efficient, (2) long-lasting, and (3) reasonable in cost. But Larson assumes that someone will, sooner or later. He looks to the vast laboratories of the automobile industry to come up with the answer, the more so because he does not feel Los Angeles taxpayers should have to underwrite research that the car manufacturers can do so much more easily.

Houdry Working on Problem

At present, district engineers are working with and encouraging inventors whose designs show promise. One is Eugene J. Houdry, Ardmore, Pa., the famed developer of catalytic refining processes. The other is George Cornelius, Pomona, Calif., whose approach to the problem is to return exhaust gases to the engine for recombustion.

In addition, district officials understand that General Motors Corp. is doing analytic work that appears to be preliminary to development of a smog-free engine.

Whereas Larson's fight for control of car exhausts as a source of contaminants is primarily a technical one at this stage of the game, his war on the household incinerator has projected him onto a badly scarred political battlefield. In seeking to improve or eliminate the primitive concrete burners that clutter up the county's back yards, he has run up against vociferous opponents.

The incinerator manufacturers constitute a small but noisy element. For some years they have succeeded in having the finger of guilt pointed at the refineries, the factories, the dumps and the automobiles. Their motives in continuing to oppose control of incinerators are seriously open to question, now that all of these sources save the automobiles have been or are being controlled.

No Incinerator Ban—Yet

The city councils of all but seven of the 45 cities in the county have so far failed to take the necessary first step toward hastening obsolescence of the incinerator—providing regular municipal rubbish collection service. And in Beverly Hills, Burbank, parts of Long Beach, Monterey Park, Pomona, Santa Monica and three unincorporated sections where such service is provided, some burning still goes on.

No city has actually banned the home incinerator. Often, where trash pickup is available, rugged individualists insist on using their incinerators anyway, saying, "Why shouldn't I burn my papers if they're still doing it over there?" And they gesture toward the city of Los Angeles, whose 2,000,000 residents busily contribute to filling the atmosphere with hundreds of tons of smoke particles that sometimes cut visibility down to one mile.

Private rubbish collectors, too, oppose Larson's plans. They fear that an incinerator ban will result in severe competition from universal municipal rubbish collection. When Larson appealed for action against the incinerators before a Board of Supervisors hearing last October 7, a gallery packed with friends, relatives and employes of the incinerator makers and rubbish collectors jeered at him, while the metropolitan newspapers carried advertisements exhorting the people to defend their constitutional rights to burn paper and make smog.

Study Air Currents

Larson's fourth step, leading toward location of industrial establishments so they will not aggravate the smog problem, hinges on an extensive wind study being carried on by the district. From 35 wind observation stations scattered around the county, district technicians are learning the areas of smog saturation and dispersion. After three years, they will be able to predict where a new plant should or should not be located, and give their findings the force of the law.

People are as opposed to smog as they are to sin, but there are enough backsliders around, Larson has found, so that he realizes maximum effective smog control must wait for public understanding to catch up with technology.

And technically much has already been done. Private industry has spent about \$16,500,000 in control devices. Larson's office spent \$2,335,000 from October, 1947, to June 30, 1953. Many hundreds of tons of contaminants were prevented from reaching the air, yet in that period industry increased its capital investment in the county by \$1,000,000,000 and population rose by 700,000.

Despite this, Larson remained optimistic. "Air pollution problems can be solved," he declared. "They are made by men and they can be eliminated by co-operation and application of technical knowledge."



Men honored for 35 years of continuous service are, from left, Ronald Gibbs, William Cornelius, Albert Cluster, Alvord Brown, Robert Fleig, Harold Prior, Thomas Fitzpatrick, William Conley, John Quayle, Granville Jones, Harold

Graves, James Powning, Allen Hendry, Hans Johansen, Paul Tyschen, Jack Muzzall, Henry Bewley, Benjamin Woodford, Charles Elliott, Forest Flower, William McDonald, Frank Richards, Chester Davis, Ford Pyle—at Knott's Berry Farm.

Sixty-Third Birthday Observance

"SINCE the founding of our Company in 1890, Union Oil management has never set its sights on becoming the *biggest* oil company in the world. But we are very much interested in being the *best* oil company in the world."

So stating at the Union Oil birthday dinner held during the evening of September 29th at the California Club in Los Angeles, President Reese H. Taylor, host, then paid sincere tribute to the employees who are helping to realize that worthy ambition. "It is fitting," he continued, "that we observe the 63rd anniversary of our Company by honoring all of those men and women who have given 35, 40 or 45 years of continuous service in its development."

About ready to accept a Calico Railway train ride, courtesy of Walter Knott, are, from left, Arthur Anderson and Frank Higuera, both holders of 45-year service pins; Ar-

The host in turn received an ovation when it was pointed out by Executive Vice President W. L. Stewart, Jr. that Union's greatest growth, both quantity-wise and quality-wise, has taken place during the term of Mr. Taylor's leadership.

Birthday presents in the form of gold watches were given to the 34 honored guests who during 1953 attain their 35th service year. Nine other celebrants were honored for having reached the 40-year service milestone. Heading the seniority list were two men who joined the Company 45 years ago—seven years before the average Union Oiler was born.

All 64 dinner participants, including six women, declared it to be the most memorable of occasions.

thur Roseman, Horace Cattermole, William Sellers, Clark Root, George Anderson, Joseph Horvat and Frank Pyle, each of whom has had steady Company employment since





Honored guests meet their host, Mr. Taylor



Step out on a sight-seeing tour of the Southland



Inspect a motor lab at Brea Research Center



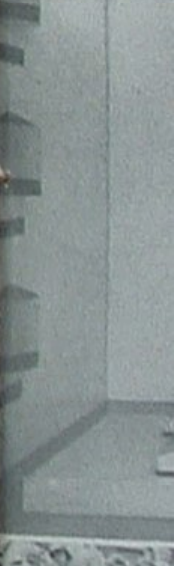
And do some Horace-trading with the Indians.

1913; and Ruth Cosbie, Violet Ingram, Ethel Cline, Nina Aus, Margaret Chalmers and Helen Whitham, largest group of 35-year women employees ever to attend the party.

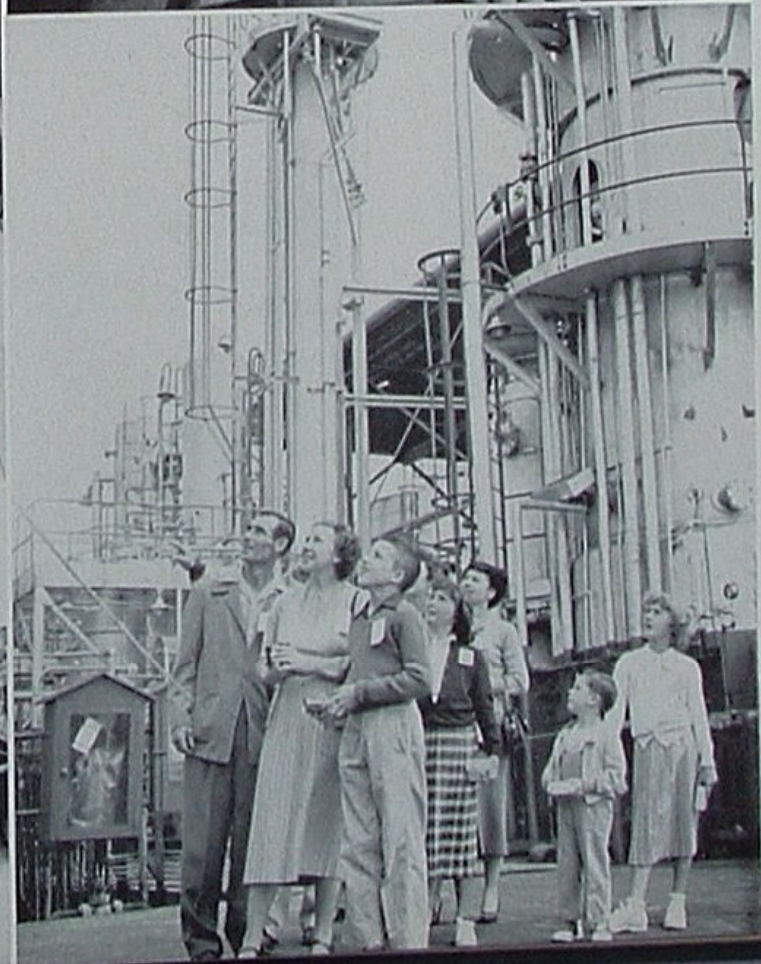
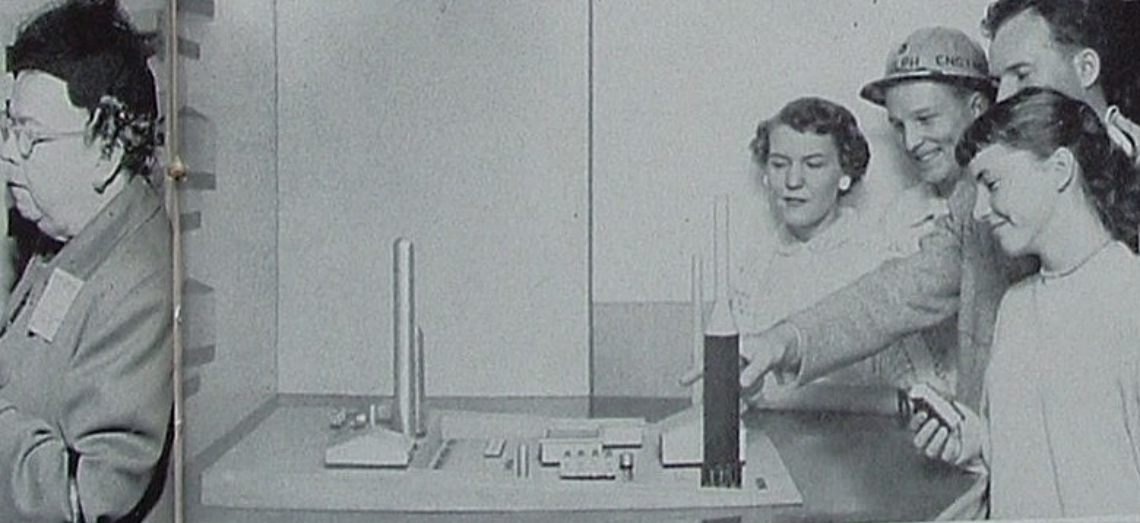
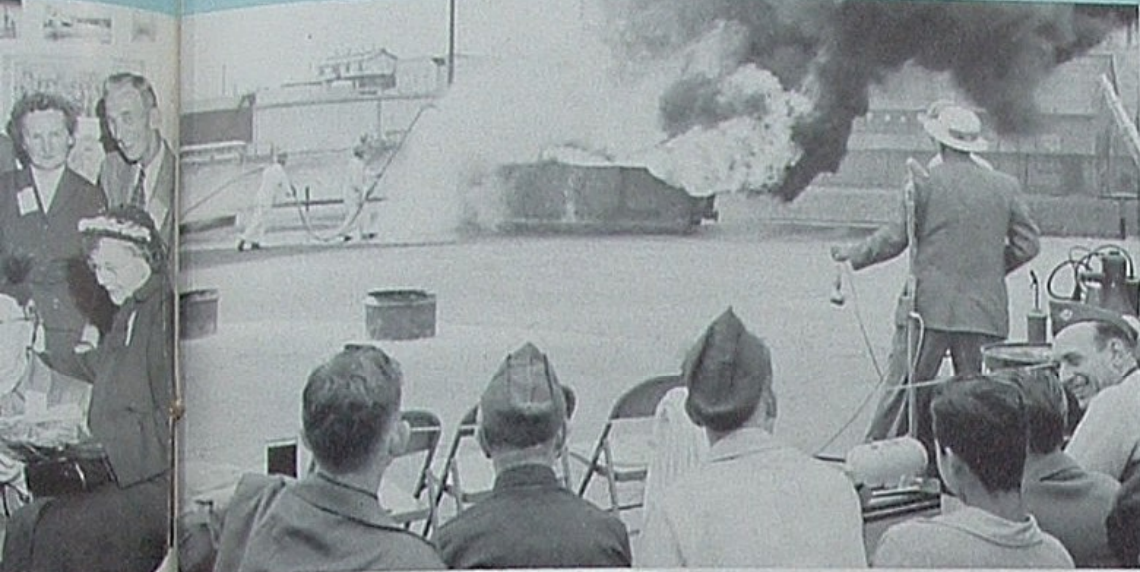
The birthday was climaxed by dinner for 64 at the California Club in Los Angeles. At the table below, Vice Presidents Rubel and Grinsfelder are with honored guests.



how we looked during OPEN HOUSE at OLE

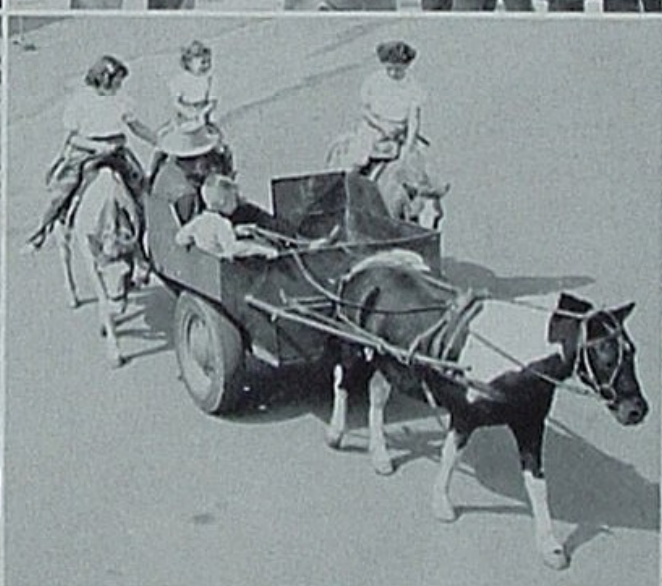
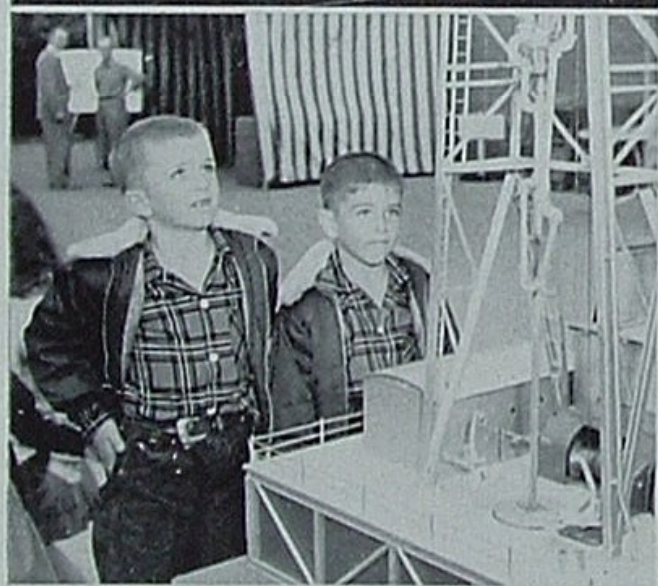


E at OLEUM REFINERY



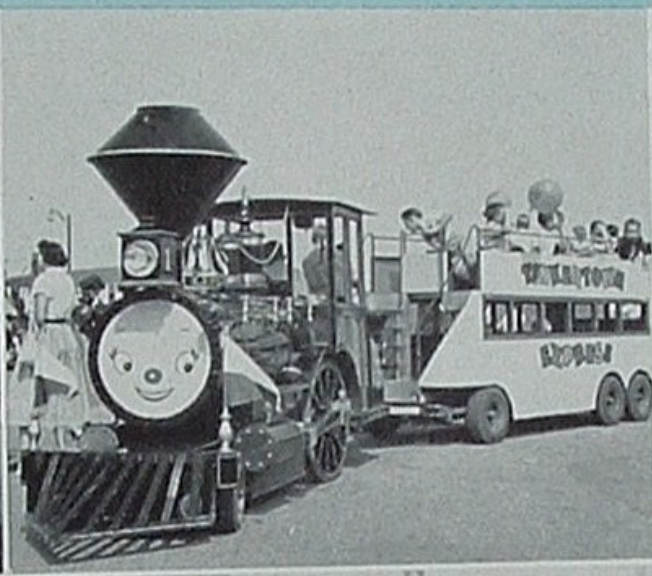


how we looked during
OPEN HOUSE at LOS





ANGELES REFINERY





Above from left, Floyd Willey, John Britz, David Colville, Leonard Peterson, Donna Osterfeld and DSM Wiley Cole welcome Gil Brown and his training unit to Santa Barbara.

Had Your Traffic Fortune Told?

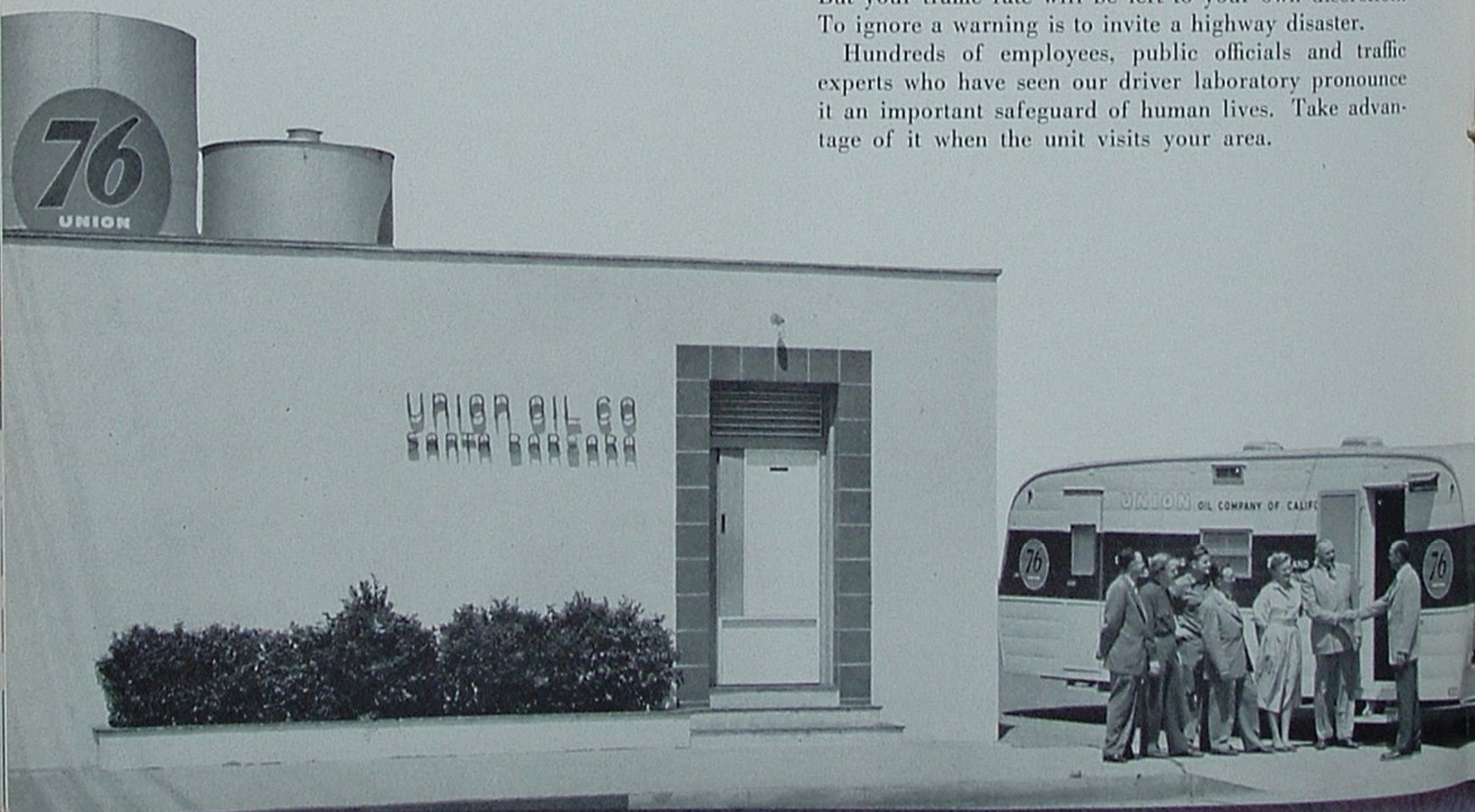
COMPANY'S DRIVER-TRAINING UNIT REVEALS PAST, PRESENT, FUTURE

WHETHER you're old or young, eagle-eyed or bifocaled, super-cautious or lead-footed—our soothsayer, Gil Brown, has a message that concerns you vitally. After inviting you inside the Company's new driver-training laboratory, he'll subject you to several of the latest of scientific fortune-telling devices—instruments that can tell something about your good or bad traffic luck of the past and offer sound advice about the more important future. It's painless. It's invaluable. And it's on the house.

The training unit, now moving from town to town under supervision of our Industrial Relations Department, is Union Oil's voluntary response to the need for greater safety on America's highways. Our trailer laboratory carries the most advanced driver-testing devices. One measures your judgment of distance. Another tells whether your brake foot reacts swiftly or slowly in response to visual danger signals. Several more mechanisms measure sharpness of vision, eye-muscle balance, glare sensitivity, degree of color blindness.

If you react normally to the electronic gadgets and can check the correct answers on a traffic questionnaire, Gil will dismiss you with a hearty commendation. If you falter, he may recommend such corrections as new glasses, greater than normal caution in heavy traffic, less night driving, closer attention to traffic rules, and so on. But your traffic fate will be left to your own discretion. To ignore a warning is to invite a highway disaster.

Hundreds of employees, public officials and traffic experts who have seen our driver laboratory pronounce it an important safeguard of human lives. Take advantage of it when the unit visits your area.



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Above, David Colville of Santa Barbara, Anne Avery and Roy Linden of Home Office submit to driver testing

devices that measure brake-reaction time and single out eye defects which, if uncorrected, may lead to accidents.



Above, Howard Robinson, Clarence Hand and Margaret Radspinner of Home Office concentrate on other vision-

testing equipment scientifically designed to simulate traffic problems we encounter daily on our streets and highways.

Right, A. E. Morrison, Company insurance representative, significantly was among the first Union Oil people to have his traffic fortune told by Soothsayer Gil Brown.





INDUSTRIAL SUMMARY

● **FIELD** The accompanying picture shows a *blowout* that occurred in the Company's discovery well in Oklahoma, Simpson No. 1, following a drill stem test of an interval just above the zone in which the well was eventually placed on production. The well blew gas and water for two days before being brought under control.

Simpson No. 1 was drilled on a unitized section, of which the Company owns 75 per cent, in Grant County, Oklahoma. The well was placed on production at a depth of 5,276 feet, flowing 312 barrels of 43.7-gravity oil per day through a 16/64" choke. Union Oil has more than 1,500 acres of leases in the discovery well's immediate vicinity, and additional leases in the general area. Simpson No. 1 represents a quick reward to the exploratory program we have undertaken so recently in this old oil-producing state, it being the second well we have drilled under this particular program. Our Oklahoma staff, headquartered in Tulsa, deserve commendation for their early success.

from Sam Grinsfelder



● **RESEARCH** An important commercial application of Process Development's Hypersorption process is now going *on stream* at the Kingsport, Tennessee plant of Tennessee Eastman Company. In this application Hypersorption is being used for the first time for the purification of acetylene, the latter being an important starting material for chemicals used in synthetic fiber manufacture. Hypersorption, it will be recalled, separates selected compounds from gaseous mixtures with the aid of activated charcoal. Our Development engineers are supervising the start-up of this unique Hypersorber.

On October 7, J. E. Sherborne addressed the Wilmington Lions Club on the subject of "Oil Developments in the Williston Basin." On October 8, J. F. Wilson presented a paper entitled "Low Temperature Fractional Analysis and the NGAA School" at the 28th Meeting of the California Natural Gasoline Association.

from C. E. Swift

● **INDUSTRIAL RELATIONS** Union Oil Company is justly proud of the numbers of long-service employees found in all departments. The following results of a recent survey show over one employee in three as having 10 or more years of Company service:

YEARS OF SERVICE	NUMBER OF EMPLOYEES
10 to 15	759
15 to 20	528
20 to 25	495
25 to 30	547
30 to 35	364
35 to 40	93
40 or more	14

from W. C. Stevenson

● MANUFACTURING

Effective October 5, Elmer B. Palmer, formerly manager of Los Angeles Refinery was transferred to the Manufacturing Department in Home Office. Appointed to succeed Mr. Palmer as manager of Los Angeles Refinery is Henry C. Meiners, formerly manager of Oleum Refinery. Replacing Mr. Meiners at Oleum is John W. Towler, formerly chief refinery engineer at Los Angeles Refinery.



E. B. PALMER



H. C. MEINERS



J. W. TOWLER

A 600-barrel per day catalytic reforming unit is to be constructed at our Cut Bank Refinery. This unit will convert low knock-rating straight-run gasoline fractions, obtained from the distillation of crude oil, into high knock-rating gasoline fractions required in the manufacture of 7600 and 76 Gasolines. The new unit is scheduled for completion by September, 1954.

Oleum Refinery will also have a catalytic reforming unit as the first part of the Oleum Refinery modernization program known as the MP-30 Plan. This unit will have a capacity of 14,500 barrels per day feed rate using straight-run gasoline stock. Known to the industry as a Platformer, this unit will use platinum as one of the compounds that make up the catalyst. At present, large quantities of high quality gasoline blending stocks are being shipped from Los Angeles Refinery to Oleum each month by tanker for blending into 7600 and 76 Gasolines. Such transfers of stock will be discontinued when the catalytic reformer is completed by November, 1954.

from K. E. Kingman

to become assistant director, Office of Defense Mobilization, United States Government, in charge of critical materials, stockpiling, etc. Union Oil complied with the Government's wishes and granted the loan of Mr. Weaver's services. Taking his place as manager of purchases is Charles S. Perkins, formerly assistant manager of purchases.

A buyers' market, which began to develop several months ago, is showing continued strength to date. Prices of most purchased items have remained fairly stable but competition has intensified among industries. Synthetic fibers are competing with wool and cotton for the textile market. Aluminum is beginning to compete with steel in the pipe and container industry. Synthetic rubber now sets the world price on natural rubber.

Prices on non-ferrous metals continue weak. Copper imports from South Africa have more than offset lessened imports from Chile, projecting further price declines. Lead and zinc are in plentiful supply.

With steel mills operating at about 90 per cent of capacity, supply on most steel items is rapidly overtaking demand. Steel warehouses are rebuilding depleted inventories, and even local stocks of pipe are increasing. For the first time in several years, some vendors are offering pipe from local stocks at substantial discounts from list prices.

from C. S. Perkins

● TRANSPORTATION & DISTRIBUTION

Ten of our pressurized liquefied petroleum gas tank cars are now assigned to Brea Chemicals, Inc. These are being used for transportation of anhydrous ammonia from vendors in San Francisco Bay and Midwest areas until Brea's chemical manufacturing facilities are *on stream*. Ten additional cars are in the shop for conversion to anhydrous ammonia service. Also, a contract has been executed for 20 newly constructed pressure cars, which will be added to our Tank Car Lease Agreement and



E. H. WEAVER



C. S. PERKINS

● PURCHASES

Effective October 2, Elmer H. Weaver accepted an important assignment with the Federal Government. He was asked



placed in anhydrous ammonia service next spring. It is anticipated that the 40 tank cars will be sufficient to handle Brea Chemicals shipments when their new ammonia plant at Loftus, California, is completed next spring.

The delivery of products direct from bulk terminals to retail outlets and distribution points by transport equipment has brought about important operating economies. To further increase the success of this system, the Automotive Department has modified the design of our familiar "Clipper" transports. New replacement units (*above*) now being constructed will carry a payload of approximately 6,100 gallons, whereas older units carry only 5,000 gallons. Larger payload capacities have been accomplished generally by the use of a frameless tank, light-weight materials and parts, aluminum wheels, and a redistribution of weight on axles. Except for tank capacity, the new trucks have no appreciable increase in dimensional characteristics and are easily maneuvered in and out of service stations.

from E. L. Hiatt

● **MARKETING**

As a goodwill gesture and service to a sports-minded public, windshield stickers reading, "We Want Big-League Baseball Now!" are being distributed through Union Oil service stations in the Los Angeles area. Simultaneously, the



stations are posting petitions on which baseball fans can affix their Big League endorsements. Sports commentators, columnists and announcers are suggesting that fans drive into a Union Oil station, sign the petition and acquire one of the stickers.

On October 1, car-dealer salesmen began presenting a liberal incentive sales program to their new-car dealers. Points are being awarded to the car dealers or their service managers or other employees each month the dealer succeeds in increasing his purchases of Royal Triton and Royal Triton 5-20 over the volume purchased during the corresponding month of the previous year. Called the "Prize Gusher," the program offers prizes ranging from a pair of scissors to an 11-cubic foot refrigerator. Incidentally, employees who use the Union Credit Card method of paying for car maintenance through car dealers perform a helpful service to the Marketing Department.

Recent organization changes include the transfer of Market Research & Development to Sales Services. Through this change, A. W. Townsend is now supervisor sales promotion and W. S. Penn, Jr., is supervisor market research. Both report to the manager of Sales Services.

On October 8, ground was broken for the expansion of Central Territory headquarters in San Francisco. Construction has been started on a \$500,000 addition to the present building, which will provide permanent quarters for the retail accounting staff now housed in temporary, leased space.

Getting the initial shovel work done were, from left in the accompanying photo, Paul A. Elsner and Richard Walberg of Engineers, Ltd., the contractor; Ralph N. Kerr, the architect; and Allan J. Lowrey, F. K. Cadwell and R. C. Nichols of Union Oil Company.

from Roy Linden

GOOD MEN ARE Our Best Fire Protection

At least twice during the past few months, Company fire losses have been minimized by employees—alert—cool-headed—commendably loyal—and well trained in the techniques of petroleum fire fighting.

On August 28, six men were eating an early breakfast in a Wilmington restaurant. It was their day off. Outside was a truck loaded with fishing gear. They had already chartered a fishing boat. But just as the men started to leave the restaurant for a pleasant day of sport, two explosions rocked nearby Los Angeles Refinery. Instantly they sensed that help was needed, and turned back to tackle a 14-hour ordeal of fire fighting. So it happened that a Long Beach Press-Telegram photographer caught the unusual news picture, upper right, of six begrimed firemen sporting fishing poles. Shown are, from left, Ken Hodson, Howard Cogdill, Sam Misita, Henry Anderson, Glade Hall and C. R. Hogan. Their efforts, coupled with those of many other employee volunteers, undoubtedly prevented a far worse holocaust.

A fire broke out on August 10th in a furniture plant adjoining our Los Angeles Marketing Terminal—a vicious fire fed by paint thinner and other flammables. But Superintendent Don Reed's plant crew knew exactly how to fight back. Through the combined efforts of Roseman, Bewley, Terrell and Flower, all alarms were sounded and the Fire Department notified. Foreman Van Nest directed the attack. Grey and Friend connected and manned foam extinguishing equipment. Evans dis-



connected all tank cars being unloaded to permit moving them if necessary. Fenton and Bue manned a hose on our warehouse roof, extinguishing six spot fires before the Fire Department arrived. Ellis, Davidson and Martin, using fork lift trucks, cleared all stored materials from the endangered wall to facilitate fire-fighting measures. Taylor and Snyder kept the exposed outside wall cool with water from a Figure-8 hose. In the opinion of fire-fighting experts, these men saved Sixth & Mateo from extensive damage. Shown below, after receiving Southwest Territory's commendation through Assistant Manager H. M. Schafer are, l-r, Morris Bue, Charles Rainey, Don Reed, Al. Van Nest, Harry Schafer, Richard Terrell, David Evans, Frank Gray, Myron Davidson, Roy Ellis, Ray Arnold, Henry Bewley (front), Junior Snyder, Robert Martin, Charles Taylor, Ray Stone, Joe Fenton.





Paul Bunyan's a Union Oiler

From Gudrun Larsen

SHELTON, one of the foremost logging centers of Washington, celebrated its 100th anniversary this year with the help of everybody in Mason County. During the three full days of centennial observance, there were many thrilling demonstrations of the lumber industry, old and new, climaxed by a loggers' sports show and a genuine Paul Bunyan parade.

Paul Bunyan, as you know, is the legendary giant of a woodsman—so big that he carries several good-sized Christmas trees in his vest pocket for toothpicks. So, it's sometimes a little difficult to find a real man big enough to represent Paul in the parade. But Shelton hasn't wanted for a giant since Al "Tiny" Ferwerda became the Union Oil consignee there some 10 years ago. Al (*in parade gear upper left*) is six-foot-seven and weighs 250 pounds. In fact, he's just about inch-for-inch the size of Mason County's famous Joe Sherwood who, back in the days of bull-logging, yoked himself in the place of a sick ox one day and kept a sawmill running. Al, of course, supplies emergency power in the petroleum manner. But he looks the equal of Joe Sherwood and is a genuine Paul Bunyan to the Mason County small fry.

Mrs. Al Ferwerda, (*above*) by no means took a back seat during the celebration. It was she who composed the popular new song, "Let's Keep America Green." Both song and composer were featured during the parade.

Furthermore, a photographic census taken just after the parade revealed a fine delegation of Union Oilers on hand (*at left*) to help pioneer Shelton's next 100.



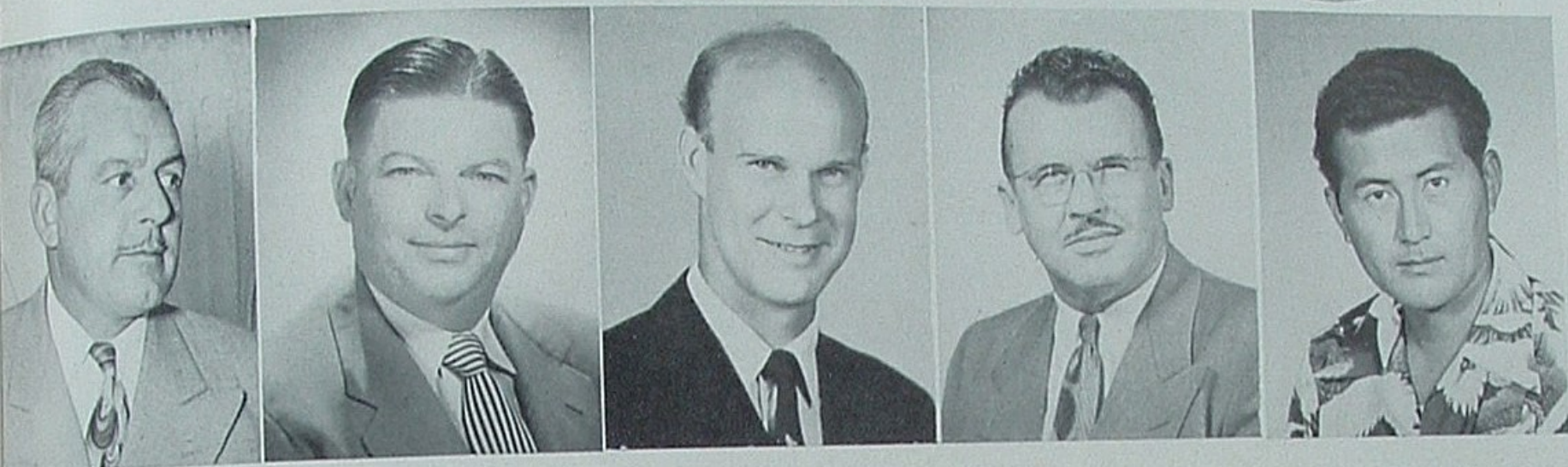
Union Oilers



CLUB 100, founded by Central Territory this year, limits its membership to Company salesmen who succeed in increasing—by 100%—the quarterly sales of specified Union Oil lubri-

cants in their respective sales fields. If you see someone sporting the handsome medallion, right, on his briefcase, cuff links or elsewhere, you'll know that he's a member in very good standing. Earning the honor of being Club 100's first five or charter members are, below from left, W. E. Hoessel of Westley, L. M. Hill of Salt Lake City, J. T. Goss of Honolulu, L. D. Lavinging of San Jose, and T. Fukushima of Kaneohe.

from J. N. Bateman



AT DINNER-DANCE of Oleum Supervisors Association on October 3, Manager Henry Meiners and Mrs. Meiners, center, received farewell wishes from many Union Oil associates including Mr. and Mrs. Harold Cargile, left, and Mr. and Mrs. Stanley Thomson. Henry is now manager of L. A. Refinery.

OSCAR RAY is here receiving a lapel award from Harry Kinsella of the Rodeo-Crockett Red Cross. The pin signifies that Oscar is a member of the Gallon Club—highest order of the great blood donor fraternity.

from M. S. McNamara

INA BUELL of Comptrollers at Home Office has solved a service-pin inconvenience. The emblems are made with a pin and safety-catch to permit fastening them securely to a coat lapel or dress. But Ina, who is proud of her years with Union Oil, found it awkward to transfer the pin every time she wore a different dress. So, she had the emblem fitted with a metallic loop, and now wears it on her wrist watch band. Emblems of this type may be awarded if others endorse Ina's suggestion.





▲ **DALE KILDAY**, salesman at Riverside, is a member of the B. P. O. E. drill team that won first honors in California in 1952, then moved on to the national convention at St. Louis in 1953 and won second place in the big competition.

from Walt Bassett



▲ **"MISS COSTA RICA"** was the title awarded during August to Irene Goicoechea Guardia, Union Oiler receptionist in the San Jose office of Compania Petrolera de Costa Rica, Ltda. Her eyes have been described as "heavenly blue." Cover girl, maybe?



▲ **DELEGATES** from Union Oil to the National Convention of Desk & Derrick Clubs, held in Denver during September, were (l-r standing) Jane Rigdon, Margaret Wilson, Lucille Price, Marilyn Calohan; (seated) Temple Young, Evelyn Fox, Irene Murray, Katherine Kemp, Jane Gayle, Norma Griessmer and Mary Jane Willrich.

from H. R. McLaurin

◀ **FIRST AWARD** of service pins since the Central and South America Territory was formed finds District Manager D. G. Mavor, left, and Resident Manager A. H. Valdes, right, congratulating Federico Ochoa, Carlos Alvarez and Gilberto Almendral for their 10, 20 and 15 years of Union Oil service. Awards were made at a sales meeting in Panama.

◀ **ALEX HATHERELL**, center, besides being an expert machinist in our Cut Bank shop, is the town's Justice of the Peace. In the latter role he has joined many a Montana couple in marriage. One marriage was even performed, with Company consent, in the shop and beside Alex' lathe altar. The Justice of the Peace, who is scheduled to retire from Union Oil service in November, is exceptionally proud of his most recent ceremony, left, wherein he united Mr. and Mrs. Ronald LaBuff, both Union Oil employees.

from R. D. Smith

▶ **CARL STEINER**, Valley Division petroleum engineer, couldn't resist bottled "76" while vacationing in the Minnesota lake country. He pronounced it the finest of citric drinks and high in manpower.

from Howard Fraser

IN THE SAFETY GROOVE are our San Francisco Plant employees, who have won the National Safety Council's Warehousing and Storage Division award for the sixth consecutive year. Taking part in the Fairmont Hotel presentation, August 28, were, l-r, DSM J. H. McGee, T. A. Burke and A. E. Archibald of the Safety Council, and Union Oilers E. E. Johnson, F. H. Kellogg and T. W. Proudfoot.

from Ethel Cline



PERFECTIONISTS are, l-r (front row) Grover McEwen, Charlie Henderson, Leo Hayes, Tom Jones, George Tilton; (middle row) Rubert Myers, Ed Genter, Pierre Beaulieu, Carl Madsen, Irv Jones; (back row) Jack Ivy, Ray Swearingen, Walt Cummings, Glen Hinkle, Emmet Kaveney and Ed Irwin—L. A. Refiners who individually have passed the 30-year service mark and collectively have achieved more than a million man-hours without a disabling injury.

from Bob Lightfoot



E. E. RICHARD of Central Territory Sales Services has a "green thumb" of the radish variety. Some home-grown vegetables displayed in his desk-top exhibit recently included this 12-inch radish. Ever see a bigger one?

from Ethel Cline



CONGRATULATING a representative group of 300 employees, below, for L. A. Refinery's 1,208,000 man-hours worked without a lost-time accident are, l-r, Clyde Lockard, Reese H. Taylor, Elmer B. Palmer and W. C. Stevenson. President Taylor presented plaques awarded by the American Petroleum Institute and the National Safety Council and gave his personal commendation.

from Bob Lightfoot





ALL-AMERICAN honors came to Cleo Goyette, safety foreman at LAR, during September. His team, the Long Beach Nite Hawks, won the world's softball championship at Selma, California. Cleo, shown at left crossing home plate after a two-run homer, hit 500 to tie for the batting championship. Clint Herron of Research, Cleo's teammate, was All-American last year.

from Bob Lightfoot

CO-CHAMPS of the Second Annual Scotch-four-some Tournament for Union Oilers of Los Angeles, etc., are John Skyko and Betty Coombs, both of Los Angeles Refinery. Bill Field and Vivian Smith were runners up, followed by some 50 other less talented golfers down to Gene Clay and Roger Kinsella, the perseveringest.

from Nadine Deleree



SHARPSHOOTERS, l-r, Walt Kjeldahl, Vern Swenson, Vernon Owen, Harry Kays, John Christenot and Charles Kane, Union Oilers at Cut Bank, are seldom outscored in Montana rifle and pistol matches. During the past two years they have placed first in their Tri-County League and in the Yellowstone Valley Tournament, and second in the Northwest Sectional and Inland Empire tournaments. They are preserving a target on which one of the marksman punctured a mosquito during "scope" target practice.



CHAMPIONS of Vallejo's BB League for 1953 are the "76" softballers of Oleum Refinery. Recreation Association President Lou Accomazzo is seen presenting the trophy to Pitcher Jack Nunes and Manager Bill Dameri.

THE FINEST at the conclusion of Oleum's intra-refinery softball competition were Warehouseman, l-r, (standing) Leonard Olsen, Jack Nunes, Ray

Cleone, Dave McClellen, Doug Jackson, Matt Barulich; (kneeling) Leonard King, Bill Von Der Heide, John Sikes and Gyp Joyce.

from M. S. McNamara





SERVICE BIRTHDAY AWARDS

OCTOBER 1953

MANUFACTURING

Fitzgerald, Gerald R., Oleum.....	30
Coles, Walter C., Oleum.....	25
Banducci, Angelo G., Oleum.....	20
Poppi, Julius, Oleum.....	20
Wilson, Percy H., Home Office.....	20
Stevens, Ike, Oleum.....	15
Barrad, Martin, Wilmington.....	10
Bowman, Lorin R., Wilmington.....	10
Grayson, Leo S., Wilmington.....	10
Parker, Audie, Wilmington.....	10
Schroeder, Edward W., Wilmington.....	10
Schladweiler, Josephine, Wilmington.....	10
Streeter, Eugene E., Oleum.....	10

MARKETING

Barker, Emma, San Francisco.....	25
Greaves, Edward R., Santa Fe Springs	25
Hurst, George, Los Angeles.....	25
Schafer, Harry M., Los Angeles.....	25
Schoneman, Amos J., San Diego.....	25
Shaffstall, Richard M., Phoenix.....	25
Carman, George N., Oakland.....	20
Davidson, Donald M., Spokane.....	20
Friend, Ralph W., Los Angeles.....	20
Reed, Edward G., San Diego.....	20
Smith, Jessie J., Seattle.....	20
Billburg, Robert J., San Diego.....	10
Haner, Lucille M., Portland.....	10
Hennessy, Frank M., Los Angeles.....	10
Hollenback, W. Maxine, Home Office....	10
Kaercher, Philip S., Los Angeles.....	10
Lund, Melvin L., Los Angeles.....	10

PIPELINE

Driesbach, Maynard B., Santa Fe Springs.....	25
Hawkins, Joseph A., San Luis Obispo....	25
Joslin, John L., San Luis Obispo.....	25
Adams, Lloyd E., Home Office.....	20
Hill, Arthur O., Santa Fe Springs.....	20
Frazier, John D., Santa Fe Springs.....	20

In Memoriam

On August 7, 1953
WILLIAM J. ROBERTSON
Southern Division Field
Retired Sept. 1, 1931

On August 27, 1953
RAY BROOKS
Los Angeles Refinery
Retired February 1, 1939

On August 28, 1953
WINFRED R. SHIVELY
Gulf Division

On September 4, 1953
EDWARD J. LOFTUS
Research and Process

EXPLORATION & PRODUCTION

Lough, Samuel T., Orcutt.....	25
Brunot, Edward L., Richfield.....	20
Fitzgerald, Edwin P., Richfield.....	20
Hoback, Joseph Q., Orcutt.....	20
Small, Fred F., Jr., Orcutt.....	20
Smith, Charles E., Whittier.....	20
Turner, Robert S., Richfield.....	20
Vaughan, Kenneth C., Home Office.....	20
Cassidy, Helyn P., Home Office.....	15
Abel, Clell D., Ventura.....	10
Johnston, Benny B., Orcutt.....	10
Moran, William R., Home Office.....	10

AUTOMOTIVE

Crossman, Kenneth, Santa Fe Springs	20
Dunphy, Charles A., Santa Fe Springs	20
Erickson, Walter C., Portland.....	15

TAX

Nass, Martha P., Home Office.....	10
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BREA CHEMICALS

McGough, Robert H., Brea.....	10
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NOVEMBER 1953

EXPLORATION & PRODUCTION

Pyle, Ford, Dominguez.....	35
Keans, Harold F., Whittier.....	30
Roberts, Minor I., Dominguez.....	25
Scanlon, Henry M., Dominguez.....	25
Fagan, George A., Cut Bank.....	10
Greene, Raymond G., Home Office.....	10
Hurter, George W., Dominguez.....	10
Stowers, Ralph J., Ventura.....	10
Veazey, Lenard, Louisiana.....	10
Vincent, Lloyd M., Louisiana.....	10

PURCHASES

Cosbie, Ruth M., San Francisco.....	35
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MARKETING

Ashton, Harold B., Oakland.....	30
Koehler, Lilly T., Los Angeles.....	25
Ralph, Dale M., Rosecrans.....	25
Baker, Harold P., Petaluma.....	20
Davidson, Cleo R., Los Angeles.....	20
Gibbons, Francis J., San Francisco.....	20
Gillespie, Berta A., Los Angeles.....	20
Beckman, Lois J., Seattle.....	15
Dick, Charles Z., Edmonds.....	15
Kolts, Richard D., Hoquiam.....	15
Swan, Charles L., El Centro.....	15
Ellis, Thomas S., New Orleans.....	10
Green, Virgil P., Los Angeles.....	10
Plummer, Laura Ann, Los Angeles.....	10
Reed, Lena E., San Francisco.....	10

MANUFACTURING

Maddy, Merle M., Wilmington.....	30
Cakebread, Robert E., Wilmington.....	25
Adams, Elmer G., Wilmington.....	10
Haselwood, Henry E., Wilmington.....	10
Hill, Iver A., Oleum.....	10
Raymond, Gerry F., Oleum.....	10
Williams, Paul J., Jr., Wilmington.....	10

PIPELINE

Grainger, Rolla, San Luis Obispo.....	30
Thurman, Garold B., San Luis Obispo....	10

RESEARCH & PROCESS

Hafner, Paul H., Brea.....	10
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COMPTROLLERS

Wade, Guernsey L., Home Office.....	10
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AUTOMOTIVE

Ternquist, Herman R., Santa Fe Springs	10
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Retirements



A grateful Company and host of well-wishing employees are bidding farewell to the following Union Oilers who have concluded long careers of Company service and are retiring:

ARTHUR W. ANDERSON

Comptroller's
Employed 9/14/09—Retired 10/1/53

HERBERT C. DALTON

Field Department
Employed 10/9/16—Retired 10/1/53

HARRY W. BROWN

Purchasing Department
Employed 10/4/17—Retired 10/1/53

PERCY MUNN

Pipe Line Department
Employed 10/17/19—Retired 10/1/53

RILEY C. PROCTOR

Comptroller's
Employed 2/1/20—Retired 10/1/53

WALLACE J. HASWELL

Distribution & Traffic
Employed 11/1/20—Retired 10/1/53

HERBERT L. MARCY

Purchasing Department
Employed 12/8/21—Retired 10/1/53

JOE SOUZA

Pipe Line Department
Employed 10/17/22—Retired 10/1/53

ALSON C. MYRACLE

Field Department
Employed 2/1/20—Retired 10/1/53

RUSHTON H. SEFTON

Purchasing Department
Employed 9/4/23—Retired 10/1/53

DELBERT HOLBROOK

Field Department
Employed 9/14/24—Retired 10/1/53

JANE MILNE

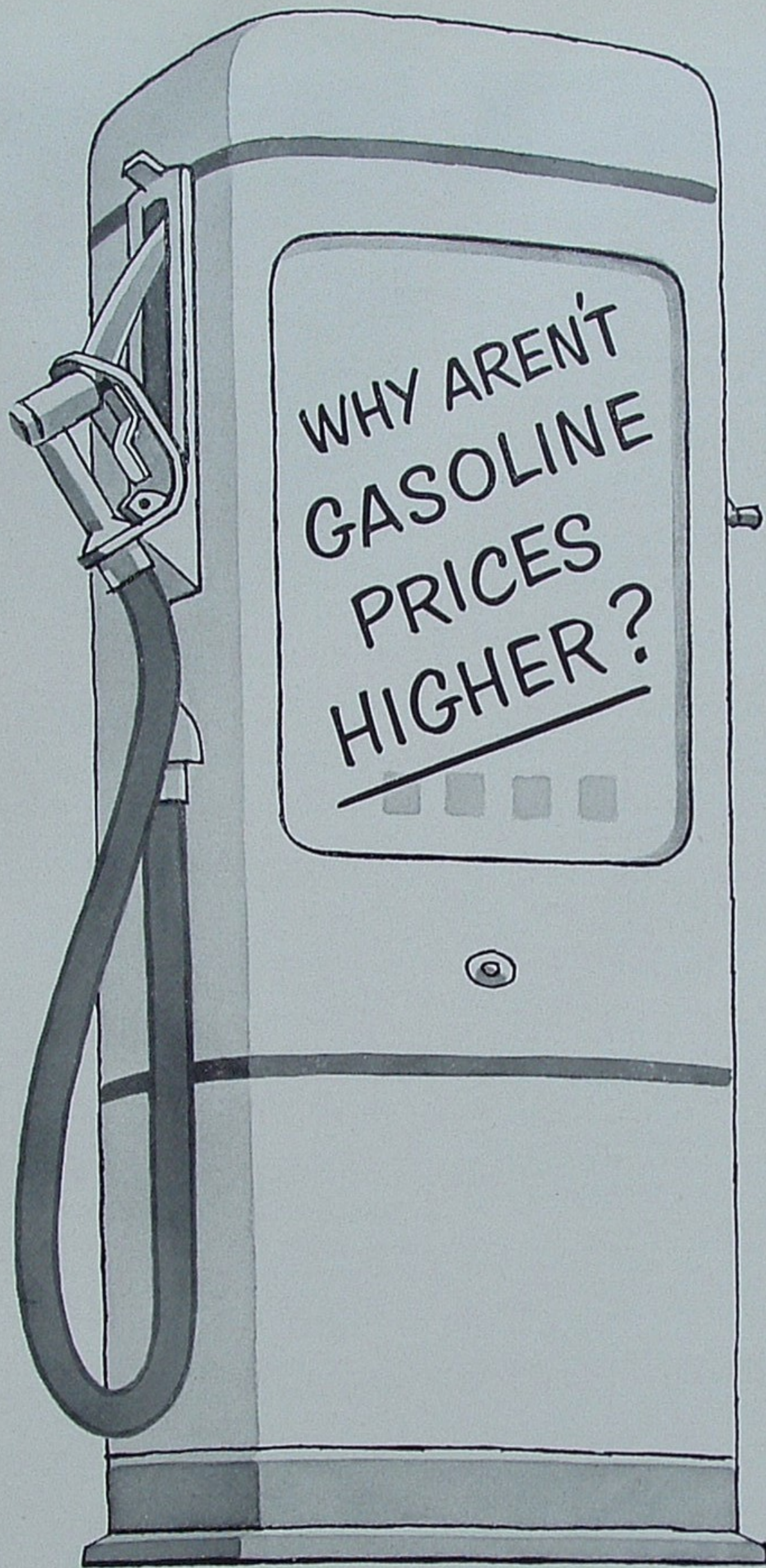
Comptroller's
Employed 6/24/26—Retired 10/1/53

BERT L. WELCH

Field Department
Employed 9/1/28—Retired 10/1/53

CLEDA A. DECKER

Comptroller's
Employed 3/7/33—Retired 10/1/53



THE price of almost everything you buy today is a good deal higher than it was in 1939.

The U.S. Cost of Living Index has gone up 87%.

The cost of building a new home is up 141%.

The F.O.B. price of a new, popular-priced 2-door sedan is 148% higher.

Even railroad freight rates—which are set by the U.S. Interstate Commerce Commission—are up 82%.

The reasons for this are obvious. Prices are higher because costs are higher.

Costs in the oil industry are no exception. The cost of building a Union Oil Service Station has gone up 200% since 1939. Our other construction costs are up 149%. Steel pipe—a material we use by the trainload—is up 88%.

In spite of all this, the price of our 76 gasoline has gone up only 66%*.

Why aren't gasoline prices higher? First, our U.S. oil companies are operating in an intensely competitive industry.

Second, U.S. oil companies are big enough to finance vast research programs. So technological progress has been great.

By plowing back profits into better facilities, by improving processes and products through research, by eliminating waste, our U.S. oil companies have been able to offset rising costs with greater efficiency—and keep their prices down.

*Average U. S. prices for all gasolines have increased no more than this.

UNION OIL COMPANY OF CALIFORNIA

Incorporated in California, October 17, 1890

MANUFACTURERS OF ROYAL TRITON, THE AMAZING PURPLE MOTOR OIL