

Crude Oil Becomes Gasoline At General Petroleum Refinery

CHEMICAL STRUCTURE CHANGED IN PROCEESS

Story for Torrance Press Progress Edition
General Petroleum corporation's refinery on 190th Street and Crenshaw is a Torrance landmark.

What goes on inside the giant plant is a process which brings to man one of his basic sources of energy. A gallon of crude oil, as it comes from its hiding place in the earth, is worthless to man. But after its four quarts of substance are converted, it becomes a mountain of strength. That conversion is what goes on at General Petroleum's Torrance refinery, one of the company's two such facilities—the other is at Ferndale, Washington.

After oil is converted, it does many wonderful things. It powers steamships, airplanes, trains and cars. All types of machines use this versatile substance for lubrication or power.

A refinery is a group of processing units which convert crude oil into gasoline and other oil-based fuels. At Torrance 17 major processing units are utilized, and they are integrated into an over-all plan for maximizing the production of gasoline.

Conversion
The "gallon of oil" is converted into nearly a half-gallon of gasoline—as well as nearly a quart of fuel oil, not quite another quart of distillates, and perhaps a handful of petroleum coke, by heat, pressure and sometimes the use of acids, caustics, catalysts or other chemicals.

Because oil moves from the beginning through the various processes in metal pipes or vessels, hardly anyone ever sees this transformation. The oil moves silently from one plant refinery unit to another, and its original chemical structure is changed into several dissimilar products.

Everything On Large Scale
A gallon of crude oil in itself isn't big. But the processing units that go to work on the gallon are huge. Almost everything at the Torrance refinery is herculean, from the nuts and bolts that hold things together to the giant towers that pierce the sky.

The tank farm holds enough oil, for instance, to fill every

swimming pool in southern California.

Strangely enough, the big processing units work on tiny molecules of oil, changing the composition of oil into varied products. This change is so complete that 96.7 per cent of the beginning gallon of oil goes into one or another product. The balance is used in heating processes.

While it is big, the refinery itself is not a cold, stand-offish thing because its personality, as a good citizen is determined by the character of the people who run it.

Many of its men are leaders in Torrance civic affairs, the Chamber of Commerce, Junior Achievement, scouting, church and other worthwhile community groups.

General Petroleum's refinery is not a static thing—it is always growing. There isn't any stopping-place in refinery development because there isn't any limit to technical progress. For example, Robert L. Minckler, General Petroleum's president, revealed only a few weeks ago plans for a new sova-former, which is in line with the company's policy of always seeking and providing a better product.

Refinery throughput approaches 100,000 barrels daily. In spite of its size and the complexity of its equipment, the refinery is a safe place to work.

Safety Record
Last month General Petroleum reported the Torrance employees set a safety record of more than 2,500,000 man-hours of work without lost time from accident.

The period covered was from February 27, 1955 to February 20, 1956. More than 1,000 employees, in a variety of crafts and trades, were involved.

The men of Torrance are all trained as experts in preventing

accidents to men or property.

Maintenance means taking care of the \$50,000 in "tools" provided each man at the refinery. About 500 operate the refinery while the other 500 maintain the processing equipment.

This huge maintenance operation requires the talents of pipefitters, boilermakers, machinists, carpenters, painters, metermen, electricians, and many others.

Smog Control
The refinery has been a leader in smog control, officials stated. In fact, many of the control devices which have been placed on industry by the Air Pollution Control Board actually were in operation at the refinery long before orders were issued that they MUST be used.

Keeping air and water clean is a vast program that has cost the Mobilgas refinery many millions of dollars since 1928. Dozens of expensive devices and even units themselves have been built to keep irritants from entering the atmosphere.

Smog isn't made in the refinery, officials emphasized.

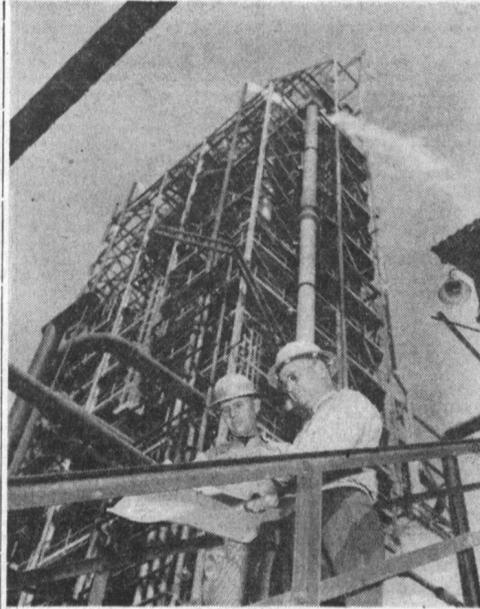
Waste water is treated and chemically purified to remove oil and other undesirable substances before it is discharged into the county sewage system. Even the omission of odors is restrained through specially-installed facilities.

The control laboratory functions include the careful checking of oil from the time it enters the refinery until it leaves as a completed product.

Operational control of each unit is based on continuous tests made throughout the day and night. To do this, the refinery's chemists take a daily average of 6,000 individual tests from samples brought from every unit, every tank and every stream.

Tests include the use of the "knock engine" by which gasoline is checked against a known octane-rated gasoline supplied by the U. S. Bureau of Standards. By these thousands of tests daily, consumers are assured that the quality of Mobil products continually measures up to the high level specifications set for them.

Buildings to carry on the refinery's business are modern, clean and functional. The large change rooms would do credit to a New England housewife. The office buildings provide



TCC at GP

Head stillman and engineer at TCC discuss modified flow chart for TCC process. TCC unit in background.

an excellent place for engineers, chemists, accountants and lots of other workers to administer the business of making gasoline. Comprehensive medical service, including first aid, therapy and X-ray equipment, helps keep the men in good health.

The refinery occupies about 773 acres of land. Its growth has never stopped since ground was broken in 1928.

The gasoline made in units such as the Thermoform Catalytic Cracking (TCC) unit contributed greatly to giving American aircraft supremacy over enemy planes.

That's the refinery—a substantial member of the community. It is a good and growing citizen which has taken its place alongside other businesses in contributing to the progress of Torrance.

Mr. and Mrs. Glenn H. Maccom, of 20006 Raymond, announce the birth of a daughter, Nancy Elizabeth, weighing 6 pounds and 3 ounces.

Local School District Now 9 Years Old

A few 'old timers' employed by the Torrance schools can recall the efforts, hopes, and aspirations of Torrance citizens to form a school system of their own. Torrance residents wanted (1) to improve educational opportunities for their children; (2) to keep their investment in schools in Torrance; and (3) to have a school administration of their own which would be sensitive to the interests and needs of the people of Torrance.

The Torrance School District separated from the Los Angeles city school district and be-

came officially a school district on July 1, 1947, for grades kindergarten to eighth.

This was the culmination of effort upon the part of the people of Torrance, which included a long campaign spearheaded by a charter committee appointed by the City Council. The members of this committee were Dr. Howard A. Wood, Mrs. Grace Wright, James Lynch, Mrs. Mina Shidler, and Carl D. Steele.

Torrance residents voted themselves out of the Los Angeles High School District in 1947

and into the Redondo High School District.

Then in 1948 they completed the steps by voting themselves out of the Redondo High School District and into a high school district of their own. Since the boundaries were continuous, the district became the Torrance Unified School District under one Board of Education.

Mr. and Mrs. Richard T. Golightly, of 619 Pine Dr., announce the birth of a daughter, Jane Linn, weighing 7 pounds and 7 ounces.

Mr. and Mrs. Earl D. Edwards, of 28313 Delos Dr., announce the birth of a son, Jeffrey Dean, weighing 7 pounds and 8 1/2 ounces.



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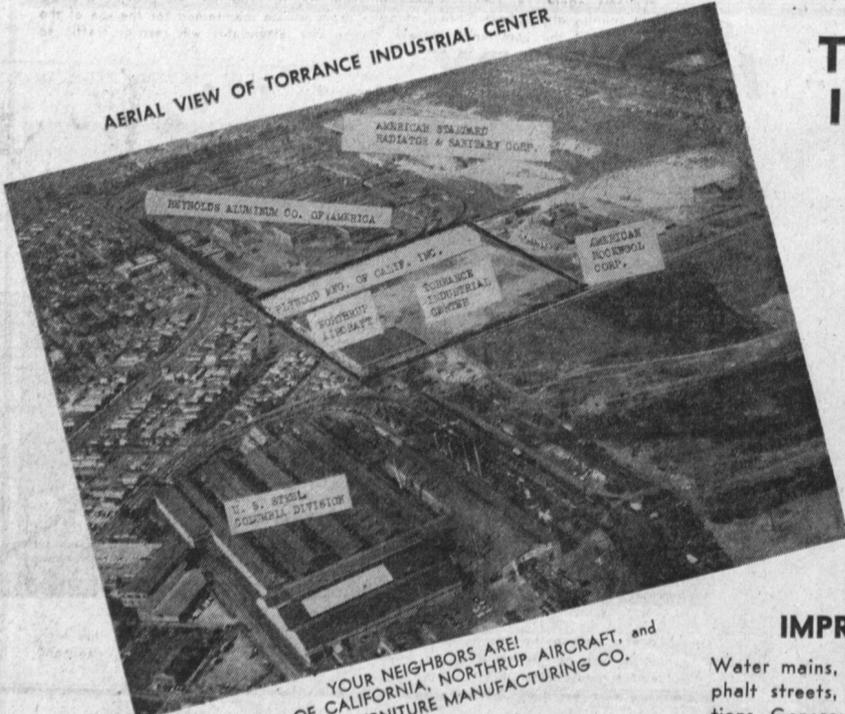
OF RANCHO PALOS VERDES



DRIVING DIRECTIONS: Drive south on Western Avenue to Palos Verdes Drive North. Turn right and drive to Palos Verdes Drive. East. Turn left to Larga Vista in Rolling Hills.



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