

New Signals Scheduled at 3 Crossings

The Board of Supervisors has allocated \$17,000 to the city of Torrance to be used in providing better traffic safety at three Crenshaw Blvd. intersections, according to Supervisor Kenneth Hahn.

The money was appropriated out of the "aid to cities" gas tax fund on the basis that the improvements of these intersections would be of general county interest and of benefit to all motorists.

The money was appropriated for the installation of traffic signals on Crenshaw boulevard at 182nd St., 190th St. and Torrance Blvd.

At 182nd St. the new signals will replace four-way boulevard stop signs. At the present time this intersection is a traffic bottleneck, particularly during peak traffic hours, Hahn said.

The "Chinese lantern" signals now in place at the other

two intersections will be replaced with standard traffic signals, which will make the signals much easier to see.

Installation of the signals will be under the supervision of the city of Torrance.

Installation of signals at 182nd St. and 190th St. will be of special benefit to students of North High School and Crenshaw Elementary school who have to cross these intersections.



**STAUFFER
REDUCING
REALLY
REDUCES!**

At one time Mrs. Jeanne L. Risse was so heavy she was unable to move about the house without a foundation garment.

Then she went to Stauffer System and reduced from 181 to 146 pounds. "I never could have done it alone."

Mrs. Risse says: Come find out what we mean! Face visit and figure analysis.

Stauffer System

Hours: 9 A.M.—9 P.M.—Mon-Fri, 9 A.M.—1 P.M.—Sat.
1822 Sepulveda Blvd. 1708A So. Catalina Ave.
Manhattan Beach, Calif. Redondo Beach (Hollywood Riviera)
FR 6-5308 FR 8-517



SUN. • MON. • TUES.
Robt. Mitchum-Deborah Kerr
"HEAVEN KNOWS MR. ALLISON"
—And—
Nat King Cole in
"CHINA GATE"

JOE THOMAS
PHONE
FR 4-9704

Offers
SUPERIOR INSURANCE
SERVICE AT A SAVING
TO CAREFUL DRIVERS



ALL YOUR INSURANCE NEEDS



(Herald Photo)

MOUNTAIN OF SUPPLIES . . . Torrance Schools' Purchasing Agent "Bud" Fuller watches as Warehouseman Howard Clark takes down a load of paper towels used in the Torrance schools. A huge inventory of some 1000 different types of supplies, ranging from buckets and school desks to bass fiddles and common pins, must be purchased for the use of local children.

All Tubes & Parts Used in Our Service Work Fully Warranted 1 YEAR
250 **DEPENDABLE TV** **250**
DA 3-6780 NE 8-7250

Catalytic Muffler 'Promising' In Preventing Smog from Autos

Of the devices and methods suggested to deal with auto exhaust, conceded to be the heart of the smog problem, one of the most promising appears to be the catalytic muffler.

This is a device to change noxious exhaust fumes into harmless carbon dioxide and water vapor. Here is what is being done to develop it.

Ever since the "hydrocarbon theory" of smog formation was enunciated in 1951, attention has focused on automobile exhaust as the primary source of the ingredients of smog. The theory, which has been confirmed by many experimenters and observers, holds that hydrocarbons—the type of chemical compounds that make up gasoline—react with oxides of nitrogen when stimulated by sunlight, and this reaction forms smog.

Oxides Formed

When the automobile engine sucks in air to burn with the gasoline, oxides of nitrogen are formed and are blown out of the tailpipe, thoroughly mixed with hydrocarbons. Such as dynamite remains inert until the proper detonation sets off an explosion, the exhaust mixture hangs near a critical balance until it is triggered by sunlight. Then like a brush-fire, the reaction spreads through the mass and forms smog.

The problem of eliminating this contribution from our three million rolling smog-fac-

ories has been divided thus: either do something to the mixture before it enters the combustion chamber—the "induction phase," or to the exhaust after it has burned—the "exhaust phase." The possibility that something may be done during the burning process itself also is being considered.

For many reasons, it has seemed desirable to attack the problem in the intake or induction phase. Studies have shown that a large percentage of the unburned hydrocarbons are emitted during the period that the car is decelerating—slowing down with the foot off the gas and the engine acting as a brake.

Gas Cut Off

Much attention has been given to devices which will cut off gasoline completely during deceleration, but at best, this is only a partial solution.

A far more satisfactory answer can be found if the exhaust itself can be treated so as to eliminate unburned hydrocarbons during all driving periods.

One method of disposing of such fumes is by an after-burner. If more oxygen is added to the unburned hydrocarbons in a collection chamber, under some conditions, they can be re-ignited by a flame or a spark. Several auto exhaust afterburners have been designed on this principle.

Use Limited

The effective use of these afterburner mufflers has been limited to large vehicles, chiefly buses, by several factors, among them the large size of the units, and the high temperatures from which the car and its occupants must be protected. The rich mixture of fuel and air required limits the effective period of operation largely to deceleration. As a further complication, the addition of fresh air to the afterburning process increases the oxides of nitrogen.

Many of these objections can be overcome by a catalytic converter or muffler. Such a muffler can be smaller, will burn during most of the driving cycle, and operates at considerably lower temperature than does the flame type afterburner.

Exhaust Reduced

Catalytic mufflers have proved successful in many applications. A properly designed catalytic muffler can reduce engine exhaust, including the lethal carbon monoxide, almost entirely to carbon dioxide and water vapor, both considered harmless as air pollutants. Unfortunately there is one disturbing limitation to the catalytic muffler: it ceases to operate in the presence of lead. And modern gasoline contains, and evidently will continue to contain, a substantial amount of tetraethyl lead in every gallon.

To understand why this limitation exists calls for a glance at this aspect of chemistry, catalysis. A catalyst is any substance that alters the velocity of a chemical reaction without appearing in the end products.

"Poisoned" Catalyst
There is disagreement as to what actually happens when a catalyst is "poisoned." What is known is that many substances interfere with the action of a catalyst by minimizing or destroying its activity. This effect can be caused in some cases by scarcely detectable amounts of lead.

Practically all gasoline produced for automobiles today contains tetraethyl lead.

It was to bring into focus the need for a catalyst that will operate in an automobile exhaust system that representatives of more than 50 leading companies in the field of catalysis gathered in Pasadena last March. The meeting, officially titled "The Conference on Catalytic Decomposition of Vehicle Combustion Products,"

Lutherans to Hold Dinner Monday Night

Members of the Lutheran Church of the Good Shepherd will be guests at the new congregation's first Loyalty Dinner on Monday evening at 6:30 at LaVente Inn, Palos Verdes Estates, according to the Rev. Gerald W. Gardil, pastor.

The dinner is preliminary to the congregation's Budget Expansion Fund Canvass, which will be conducted next week. An informal program presented by members of the congregation will follow the dinner. The Rev. T. Arnold Thompson, Minneapolis, regional director of home missions of the Evangelical Lutheran Church, will address the congregation.

Members of the hostesses' committee includes Mrs. A. O. Dressen, Mrs. Robert Mrs. Neil Lewis, and Mrs. Don Nicklasson.

was arranged by the Lutheran Control District Air Pollution Foundation to provide for an exchange of views and to stimulate interest of American industry in producing an effective auto exhaust control.

Lead Studied

One of the most provocative suggestions advanced at this meeting was that an exploration be made of the possibility of finding a catalyst that itself contained lead. Such a catalyst not only could be immune to "lead poisoning," but might even be improved as lead accumulated on it during driving.

Experiments also have been made to determine whether it might be possible to decompose the oxides of nitrogen by catalysis. In the course of the experiments it was determined that activated charcoal reduced the oxides of nitrogen approximately 85 per cent, yielding inert nitrogen gas and carbon dioxide. Oddly, the addition of lead oxide seemed to improve the reaction!

This experiment has aroused a number of speculations. If the oxides of nitrogen can be reduced by this process, which is estimated to cost less than one cent per gallon of gasoline, will the hydrocarbon reaction that forms smog slow down sufficiently to relieve our over-all air pollution problem? Is this attack upon oxides of nitrogen an answer in itself?

Point Raised

Another point raised: is it possible to combine the reduction of oxides of nitrogen by this carbon reaction, with the combustion of hydrocarbons and oxygen? Can they be made to operate within the same container, or if not, then in successive units?

This is the type of speculation that in the course of scientific inquiry evokes answers. Based upon other technical accomplishments, it seems likely that a control for the automobile will be found.

Certainly, whether the ultimate device is based upon catalysis, or combustion, or upon some other, yet unconsidered process, the quest for a catalyst is turning up some exciting new possibilities in air pollution control.

Fire Insurance



Lund CO. AGENTS

2367 TORRANCE BLVD.
PH. FA. 8-3567

BOWL-O-DROME

WESTERN AVE. at 220th ST. — FA 8-3700

REAL HAWAIIAN LUAU

\$1.50

SUNDAY NIGHT—5 P.M. to 9 P.M.
ALL YOU CAN EAT
BRING THE WHOLE FAMILY

DANCING TO THE MUSIC OF
FRANKIE HARRELL TRIO
TUESDAY THROUGH SATURDAY

ROTH'S FALL FOOD Value Parade

PRODUCE

GRAPES
SWEET TASTY
TOKAY OR BLACK
RIBIER **7¢ lb**

Banana Squash **2¢ lb.**
Fresh Cut Thick Meat

MEATS

TENDER DELICIOUS QUALITY

Beef **CHOICE LEAN BONELESS**

FOR STEWING

MAKE A BIG FAMILY FEAST WITH THE VERY FINEST BEEF NOW AT ROTH'S!

59¢ lb

DELICATESSEN

KRAFT SLICED AMERICAN CHEESE **29¢**
8 OZ. PKG.

BRAUNSCHWEIGER CHUBS **33¢**
OSCAR MAYER 8 OZ. PKG.

JELLO ASSORTED FLAVORS

5¢ pkg.

SEPT. 23-24-25

Roth's

SUPER FOOD MARKETS
1321 POST AVENUE, TORRANCE
109 S. HAWTHORNE BLVD., HAWTHORNE
310 E. MANCHESTER, L.A.—12021 W. WASHINGTON, CULVER CITY
3024 S. SEPULVEDA, L.A.—2412 PICO BLVD., SANTA MONICA—2709 E. MAIN, VENTURA
10040 ROSECRANS AVENUE, BELLFLOWER

Sales Tax Collected on All Taxable Items We Reserve the Right to Limit Quantities