INTRODUCING THE ENGINEERING SECTION

Solutioning an 85,000 barrel cavern from salt beds 1,850' below the Bradley Road Terminal for LPG storage, planning the central control of Mid-Valley's pump stations, observation of sea trials of the 46,000 DWT tanker "C. E. Spahr", a computer program simulating operation of the products pipelines from Toledo to Cincinnati — these are typical projects of the Transportation Division's Engineering Section. The varied nature of these projects exemplify the versatility and scope of engineering knowhow required for Transportation's activities.

Specifically, the Engineering Section's assignment is the planning, designing and constructing of facilities for pipeline and marine transportation of crude oil and products, as required by the Transportation Division.

The Section's organization is comprised of three similar groups of two to three engineers reporting to Group Supervisors F. Gayle Hausmann, Tegner C. Johnson, and William N. Sorensen. These supervisors, reporting to Chief Engineer, Ralph D. Jackson, are responsible for the conduct of particular projects.

Projects are assigned alike to the respective supervisors, except for the specific assignments of the Section's capital budget, standards, and technical library to Frank G. Hausmann; construction, scheduling, training, and safety to Tegner C. Johnson; electronic data processing, communications, and control systems development to William N. Sorensen.

Currently, senior engineer Charles J. Meyer and engineer Russell G. Ellis are reporting to Frank Hausmann; engineers William F. Gannon and Ronald J. Lindsay are reporting to Tegner Johnson.

Supporting the project groups are chief draftsman Alex R. Galli with senior draftsman Richard A. Sadler, and draftsmen H. J. Kowalski and David E. Bendick. The details of records, material check lists, delivery schedules and receiving reports, project cost accounting, and completion reports is the job of senior clerk Charles H. Gatchel. In administration, Alex Galli and Charles Gatchel report to Frank Hausmann. The senior stenographers combine their stenographic chores with other assignments — Barbara Drinko handles the Section's technical files, and LaVerne Mullen assists in the preparation of electronic data processing detail.
We are pleased to have material from this publication reprinted, but please request permission.

J. F. Gayle Hausmann, Group Supervisor, points to the three dimensional model of the Bradley Road LPG storage cavern, held by Senior Engineer Charles J. Meyer. Senior Steno., Mrs. Barbara Drinko listens and recalls the many reports she has handled on this particular project. Charlie has twenty-two years with the company. Gayle came with Sohio in 1952, and Barbara joined Sohio in 1960 for the second time. She had had two years prior service with the Accounting Department in 1957-'59.

Russell G. Ellis, Engineer, who also reports to Gayle is not shown. When these pictures were taken he was attending the Pipeline School of Technology at Lee College, Baytown, Texas.

The various projects involve frequent cooperation and coordination with all Departments in Sohio. Contacts with suppliers and contractors are obvious — successful negotiation of agreements with federal, state, county, or city government agencies and property owners are essential to the average project.

Following a Transportation tradition, today's Engineering Section combines the conventional engineering specialties with a keen sense of transportation economics in the familiar question "Why?"— from this combination results an answer to the challenge "Why not?"
SOHIO SCHOLARSHIP COMPETITION
STARTS FOR 1962

Once again the Board of Directors of the Standard Oil Company (Ohio) is giving the sons and daughters of Sohioans the opportunity to compete for one of the scholarships under our Sohio Scholarship Plan. Competition for these scholarships is open from October 15, through December 31, 1961. The Board has approved the scholarship plan for the eleventh consecutive year.

This year the College of Steubenville, Steubenville, Ohio, joins the list of member colleges bringing the total up to 32. High school graduates must be prepared to enter college as freshmen in the fall of 1962.

Refer to the October issue of the Sohio News for more complete information. Questions concerning details of the scholarship plan may be directed to the S & T Employee Relations office, 1023 Midland Bldg., Cleveland, Ohio.

CHANGES IN THE LINEUP...

TRUNK PIPELINES

The maintenance crews at Fostoria and Bradley Road and the Engineering Construction crew have been dissolved. The work ordinarily performed by these groups will now be handled by personnel within each district of the Products Region. As a result of this reorganization, the men involved are now located accordingly:

CLEVELAND-TOLEDO DISTRICT

Carl Bertram,
Maintenance Supervisor
Glen Goebelt, Pipeliner
Jack Jordan, Welder A
Lurelle Loomis,
Electronics Technician
Billy Noble,
District Mechanic
Elmore Whitten, Pipeliner
Carl Ziegler, Pipeliner

CINCINNATI-DAYTON DISTRICT

Leo Betts,
District Mechanic
Bob Fleck, Pipeliner
Ernest Hock, Pipeliner
Paul Jacobs, Pipeliner
Fred Phillips, Pipeliner
Don Reeder, Pipeliner
Matt Trushell, Pipeliner

Jerome Sullivan is the new District Clerk in the Cincinnati-Dayton District. Jerry is 26 years old and he and his wife, Saundra, reside at 3325 S. Sterling Way, Cincinnati.

GATHERING PIPELINES

Jack White, Area Clerk in the Magnolia Area, transfers to the Shreveport District Office.

Chester Franks, former Area Clerk in the Prairie Area, transfers to the Norris City District as Stock Control Clerk.

HOME OFFICE

Carol Breznyak, former Sr. Stenographer in Administrative-Central Dispatching, is now Right-of-Way Clerk in the Administrative Section.

Kinji Hayashi, Products Pipeline Accountant in Supply and Transportation Accounting, has transferred to the Administrative Section of the Transportation Division.

Regina Backman is the new Sr. Stenographer in the Engineering Section. Gene reports to R. D. Jackson.

INLAND LINE TAPPED BY MISTAKE

Ninety-one barrels of gasoline were lost when the East Ohio Gas Company tapped Inland's 8-inch delivery line which runs into Cleveland's industrial river valley area, known as the "Flats." The 4-inch line that East Ohio Gas was looking for was located on the other side of the street. The section of Inland's line which they tapped had to be cut out and replaced. This work was performed by Tom Coyne from Bradley Road's maintenance crew and Fred Phillips, Ernie Hock and Curly Whitten who were at the time, members of the Division Maintenance Crew headquartered at Fostoria.

OLD LINE TO SERVE NEW PURPOSE

Carl Bertram's crew is reconditioning the old 6-inch line, formerly the Cleveland-Canton line (the first products line ever laid by Sohio) between Bradley Road and No. 1 Refinery. They are putting in new valves and replacing the part of the line on the Alcoa property where the fill over the line has become so deep that it is impractical to uncover it. When the line is finally reconditioned, it will be used for the movement of propane from the refinery to the Bradley Road LPG cavern.

WORK PROGRESSING ON LPG PROJECT

Work on the loading facilities at Bradley Road is being performed as quickly as possible before winter weather sets in. Rough grading for the site where the pumps and other auxiliary equipment will be set is now being done. Five storage drums coated with pipeline enamel will be set and covered before winter if all goes as planned. These drums, approximately 45 feet in length and 9 feet in diameter, are being fabricated in Shreveport, Louisiana and shipped via railroad car on a special routing. The purpose of these drums is to permit the partial withdrawal and testing of measured amounts of LPG.

A 90,000 barrel reservoir is also being built and lined with half-inch thick asphaltic sheet (this lining is similar to heavy roofing material). The purpose of the reservoir is to hold brine which will be used to displace LPG as it is needed to fulfill sales commitments.

No pressure is needed when the brine is pumped into the cavern to displace the LPG. However, approximately 600 lbs. per square inch of pressure is needed when LPG is pumped into the cavern and brine is displaced.

Plans call for the installation of pumping and drying equipment and the necessary piping in early spring.

RELOCATION JOBS COMPLETED

The Winton Terrace relocation (near Cincinnati) and the Par Buffler relocation (also near Cincinnati) of the Miami Valley pipeline near route 127, have been completed. The Par Buffler re-route job consisted of laying 4,200 feet of new pipe and removing 3,800 feet of old pipe after the new line was tied in. This work was performed by the Cincinnati-Dayton District maintenance crew.

REMOTE TELEMETERING INSTALLED

Remote telemetering for Tiffin has been installed and is in full operation. The installation of this electronic system permits the sending of telepulse signals from Tiffin to Fostoria where they are read on a remote metering device. The work was done by W. T. Kerby under the supervision of G. E. Hathaway.
GATHERING PIPELINES...

STOCK TANK REPLACED

The relocation of a 5000 bbl. stock tank from the Griffin Station to the Mt. Carmel Station has been finished and the piping at the Mt. Carmel Station has been modified to eliminate several inconveniences in the operation of this station, thereby making the working situation for gager, Clarence Duncan more efficient. The 5000 bbl. tank set at Mt. Carmel replaced the old stock tank that was in very bad repair.

LINE REMOVAL PROGRAMS UNDERWAY

Work is progressing on the line removal program in the Maple Grove gaging district. As a result of this work, a small stock of pipe is being accumulated. Central storage has been established on a communitized water flood program, permitting this line removal project.

The work is being done by a contractor. Maurice Roberts, Harry Martin, Clarence Meserole, and Jim Myers have alternately acted as inspectors looking out for Sohio's interests on these jobs.

Work has been completed on the removal of surplus pipelines involved in the small system purchased from the Superior Oil Co. This system is north of Mt. Carmel, Illinois, and ties a secondary recovery lease of Superior's in to the Sohio Mt. Carmel system.

COMMUNITY HELP APPRECIATED

A letter of appreciation from Centralia's Mayor Walter Shipp was received by the Centralia District Office. Mayor Shipp commended Sohio for the donation of their time and talent to help furnish a baseball diamond for the girls of Centralia. Sohio's contribution to Lions Field was in the form of Fred McKechnie who spent time on Saturdays with welding machine and junk pipe in the construction of a backstop.

SUPERINTENDENTS' CONFERENCE HELD IN CLEVELAND

The eleven superintendents from the headquarters and districts assembled in Cleveland for a conference on Monday and Tuesday, September 25 and 26. The primary purposes of this conference were (1) to acquaint the District Superintendents with the Cleveland organization and its functions and (2) to provide an opportunity for all Superintendents to get acquainted with some of the new members of the Transportation Division.

The agenda for the conference was balanced with tours of Cleveland area facilities and explanations and discussions of various organizational functions. J. P. West spoke about the Central Dispatching operation, R. F. Dudley reviewed the functions of the Traffic Section, C. E. Curry dealt with the goals and objectives of the Purchasing Division, J. R. McCreary explained the Supply Division's activities, and J. Durham introduced the operations of Sohio's computer program. Tours included the following locations: IBM Rooms, Chemical and Physical Research Laboratory, Marketing Department's Cleveland Division Terminal, and Transportation's own Bradley Road terminal. The tour of Bradley Road terminal included others from the Home Office, in addition to the eleven superintendents. That entire group is pictured below.

REMEMBER WHEN...

10 YEARS AGO...

In 1951 the Transportation News reported that:

"Sohio Experiments With Microballoons"

Two 1,000 bbl. crude oil storage tanks near Mt. Vernon, Ill. may be used in an experiment with a new type of tank seal — microballoons! The microballoon method of reducing stock losses is being developed by the Standard Oil Co.'s Chemical Research Department, under the direction of Dr. E. C. Hughes.

Under this new method, crude oil storage tanks will be sealed by a layer of microballoons floating on the crude oil. The microballoons are tiny, hollow, sealed particles of crude oil foam around .001-inch in diameter. The layer of millions of microballoons floating on the crude oil will probably be an inch or two thick. The microballoons won't completely prevent stock losses, but should be a permanent covering, just about as efficient as a floating roof.

Allen Dorris, St. Louis Engineer, is going to assist the research group with the first field tests. About 150 to 200 lbs. of microballoons will be required for one foam installation. The Research Department is preparing the balloons.

Ten years later (1961), we can see how the use of microballoons has helped reduce our stock losses:

The result of this evaporation loss that cost over $300,000 can be seen in the accompanying graph. It is a plot of crude oil losses at our Findlay Tank Farms where microballoons were installed in 82 tanks in 1953.

Prior to 1953, actual yearly losses had averaged approximately 64,000 barrels per year. After the installation of microballoons in 1953, the average yearly loss dropped to 7,700 barrels per year. The yearly average calculated evaporation loss without microballoons would have been approximately 50,000 barrels per year. The microballoons accomplished an annual reduction of 85 per cent of normal evaporation losses from our Findlay Tank Farm. Savings from this one tank farm of 82 tanks have amounted to $170,000 per year for the last 7 years.

There is little doubt that microballoons have played an important part in our over-all loss reduction. We have estimated savings to be approximately a quarter of a million dollars per year from our 109 microballoon-covered tanks, and it represents over a 500 per cent return on our money spent in 1953.

After several years of operation, it appears the life of the microballoon foam on Sohio's tanks will be over 20 years. It should be pointed out, however, that foam in working tanks has many opportunities to be pumped out accidentally, particularly if one is endeavoring to operate using maximum tank capacity. It is therefore recognized that in some tank operations the life of the microballoon foam could be shorter.

5 YEARS AGO...

In 1956 the Transportation News reported:

“Electric Mixers Installed at Stoy”

Jensen mixer before installation. This shows the tank manhole in which the mixer was inserted and the chain extended from the top of the tank used to maneuver the mixer into the opening. In the background is hose used in removing BS&W from the tank bottom by Cat-Gaso unit.

“Electric mixers were recently installed in two of the tanks at Stoy in order to keep the BS&W in suspension so that it will flow out of the tank evenly along with the oil and not accumulate in the bottoms of the tanks.

Before the mixers were installed, a Caterpillar-Gaso unit was moved to Stoy and connected to the bottom of the tank to pull out as much of the heavy oil as possible and inject it gradually into the 12” stream.

To put the mixer in the tank, the manhole cover was unbolted except at the bottom and swung down out of the way. Mud was then packed in part of the opening and left to harden. A long chain was hung from the top of the tank and this enabled the men to raise the mixer up to the manhole with ease.

The three-bladed 26” fan propeller had to be removed from the shaft and worked inside the 20” manhole by tilting it back and forth. Fitting the propeller back onto the shaft proved to be a difficult job, because here was very little room and no light and the fitting had to be made mostly by touch.”

Jensen mixers are used today (1961) on some of the bigger tanks. Thanks to the combined efforts of Bob Roberts and Bernie Brigham, however, we now have a portable mixer that does the same job. It can be used on a number of tanks rather than being permanently installed in one particular tank.

Sam Briggs, Tank Farm Foreman at the Findlay Tank Farms, gets most use out of this new portable "jet-type" mixer. It consists of a small portable pump connected to several lengths of hose and aluminum pipe. Oil from the tank flows through a hose tapped into the pipeline connection, to the pump. The pump forces the oil through the discharge hose up the outside of the tank to the top and down again into the bottom of the tank through a section of aluminum pipe inserted through the gage hatch.

A nozzle at the bottom of the pipe helps to create enough force to cause the BS&W to circulate within the tank and go into suspension so that it can be pumped out of the tank and into the pipeline.
On Tuesday, August 29, Sohio’s Transportation Division had piled up 982,089 man hours of work without a lost time accident. Then Joe Kowalski, Cleveland Office Draftsman, working at Bradley Road Terminal, unexpectedly disturbed a hidden nest of yellow jackets. Three of them got him before he knew what had happened, and the doctor recommended hospital treatment resulting in lost time.

Since the division works an average of 2100 man hours per day, some simple arithmetic shows that we missed the MILLION man hour landmark by only eight and a half days. When you consider the hazards which face pipeliners daily, this adds up to a pretty fair safety record — by far the best we have ever enjoyed. It took an average of 360 people almost 16 months to reach that total and it is something to crow about even if it does seem we are “putting the bee” on Joe — Ouch!

While we are writing about Safety records, there are some more being set that shouldn’t go unmentioned. The Centralia District last month passed eight years without a lost time injury. Grayville District completed five years in September, and Clay City can reach six years before Christmas if it keeps up the present pace.

The Engineering Construction crew, before it was disbanded, had accumulated five and a half years since the last lost time accident and over four years since even a reportable injury.

You can now play a greater role in the Company’s marketing picture. Until now you have been able to help Sohio STEP ahead by recommending credit card applicants and by furnishing names of potential fuel oil customers. With STEP 6 you can now formally furnish Sales Leads for any and all of Sohio’s products and services.

Your Sales Leads can now include commercial and industrial accounts such as contractors, fleet owners, farmers, schools, churches, government agencies, and manufacturing and assembly plants — anyone that can use any of the Company’s products and services.

This vital part of the STEP program is designed to help you report your important Sales Leads. The STEP Coordinator has provided a concise form which when legibly completed will provide our salesman with the necessary information to follow your lead. The salesman will then report back to you the outcome of his call on a copy of the form. These forms will be furnished to you by your Departmental STEP Coordinator later this month when he will furnish you with complete information on our latest STEP. STEP UP TO STEP 6!