

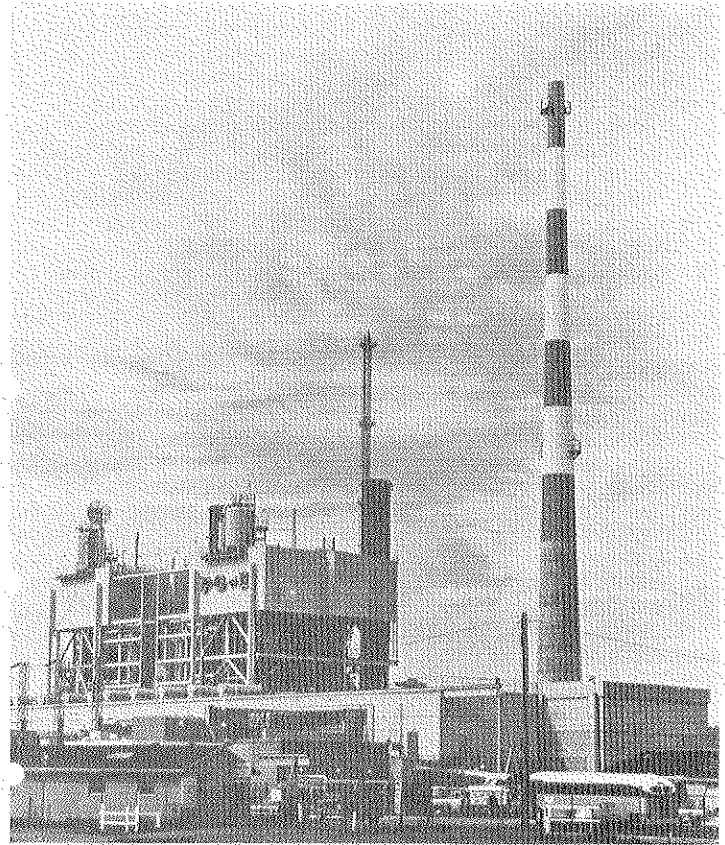
# THE WINGFOOT CLAN

GOODYEAR ATOMIC CORPORATION

Portsmouth Area Gaseous Diffusion Plant

A Subsidiary of THE GOODYEAR TIRE & RUBBER COMPANY

VOLUME XI                      PIKETON, OHIO, FRIDAY, APRIL 17, 1964                      NUMBER 15



**HUMBOLDT BAY** — This nuclear plant, located near Eureka in northern California, was one of five power-producing plants to attain criticality in 1963. The privately built plant cost the Pacific Gas and Electric Company about \$26 million.

**Goodyear Supplied The UF6**

## Humboldt Reactor Went Critical In '63

In 1963, the net-installed electrical generating capacity of nuclear power stations in the United States reached a total of more than a million kilowatts — enough electrical power to supply the domestic needs of about 1½ million people — as the reactors in the nuclear power plants located at Big Rock Point, Michigan; Indian Point, New York; Hallam, Nebraska; Humboldt Bay, California; and Saxton, Pennsylvania, reached their design power levels for the first time during the year.

Goodyear Atomic Corporation provided all of the enriched uranium for the Humboldt Bay Reactor — 54,680 pounds of Uranium Hexafluoride — valued at \$3,472,300 (current value).

The Humboldt Bay Reactor produces 165 thermal megawatts which are converted into 48,500 net electrical kilowatts. It is a boiling water, di-

rect-cycle and uses light (ordinary) water as both a coolant and a moderator. Its uranium oxide fuel is clad in stainless steel.

The reactor attained criticality on February 16, 1963, and first generated electrical power on April 18. On May 4, this 48,500 net electrical kilowatt reactor facility reached its licensed 165-thermal-megawatt power level. In view of the favorable behavior of the reactor throughout a series of experiments conducted at this power level, the Pacific Gas and Electric Company was authorized, early in December, to conduct a special 15-day test program to demonstrate operation of the reactor at power levels up to 230 thermal megawatts (68,500 net electrical kilowatts). Based on the results of these tests, PG&E hopes to obtain authorization for increased electrical power operation in 1964.

**HIGH SCHOOL GRADS**

Employees are asked to submit a small black and white picture of the student, with his or her name, high school, parent or parents working at GAT, and the department where the parent works. Please do not send colored photographs.

Photographs and information should be sent to The Wingfoot Clan Office, X-100 Building.

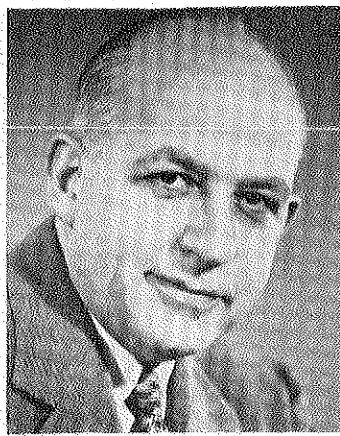
**Facilities For Several Thousand**

Approximately \$2,351,000,000 have been invested in the three gaseous diffusion plants located at Oak Ridge, Paducah, and Portsmouth.

If you think of Goodyear Atomic Corporation as a community of several thousand people, with the exception of retail stores, you soon realize the vastness and capacity of most of the facilities.

The facilities of this community include a Police Department, Fire Department, Water Treating Plant, Sewage Disposal Plant, Garage, Machine Shop, Sanitary Water System, etc.

In columns 4 and 5 are pictures of four of these facilities. Take a good look and then turn to page two.



A. J. GRACIA

**First GM**

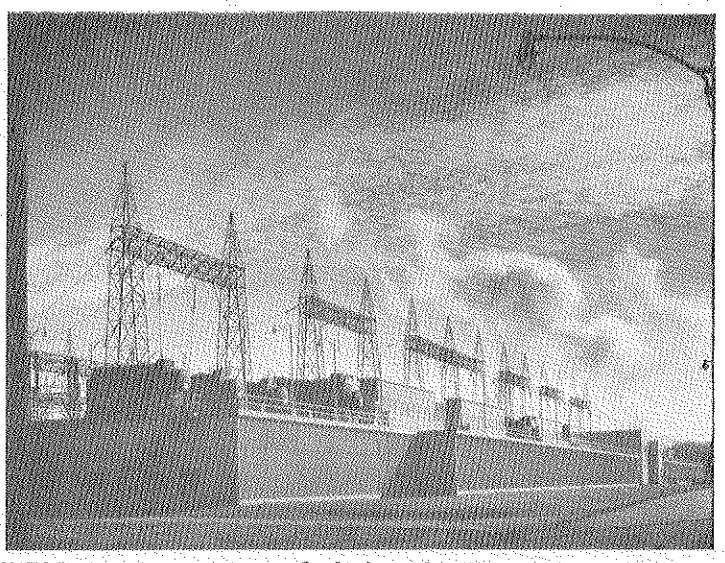
## Gracia Elected Vice President

E. J. Thomas has relinquished his duties as Chairman of the Board and Chief Executive Officer of The Goodyear Tire & Rubber Company. Russell DeYoung is the new Chairman and Victor Holt, Executive Vice President, becomes the new President.

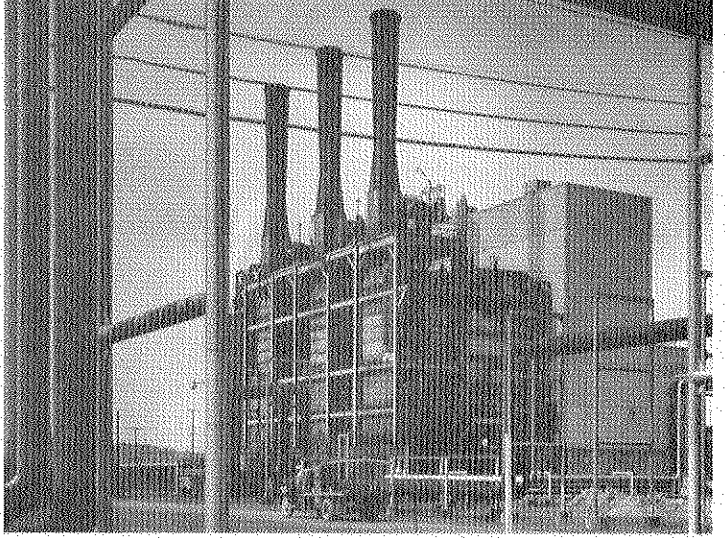
Albert J. Gracia, first General Manager of Goodyear Atomic, was elected Vice President of Research.

Last fall Gracia received the Distinguished Award of the Akron Council of Engineering and Scientific Societies. The Council's award recognizes outstanding professional achievements, managerial accomplishments, activities in professional societies and work of a civic nature outside the profession.

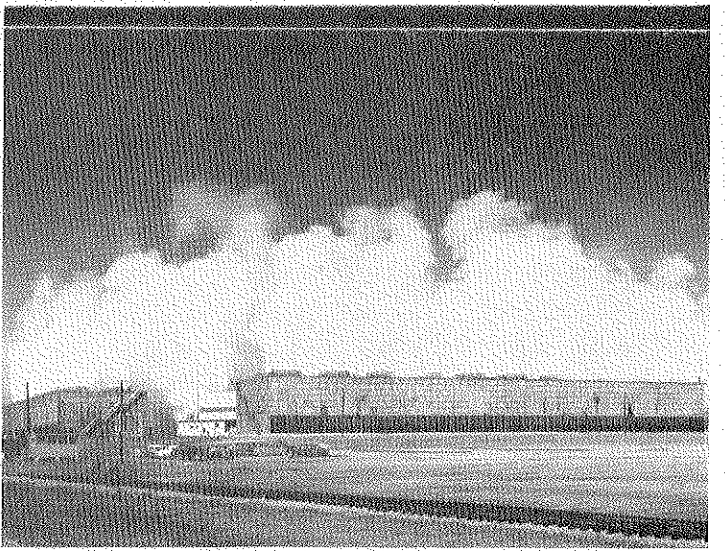
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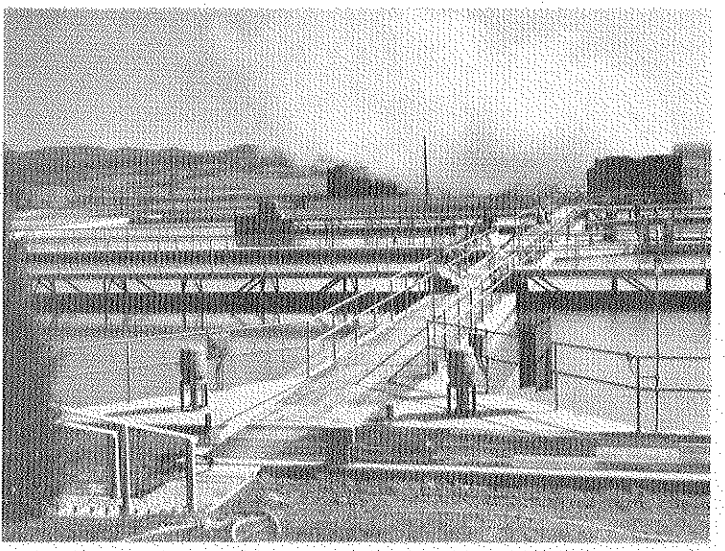
X-533 . . . . . Switchyard



X-600 . . . . . Steam Plant



X-633 . . . . . Cooling Tower



X-611 . . . . . Water Treatment Plant



**TAKEN FOR GRANTED** — Louise Pettit, Receiving and Shipping Department, flips the light switch lighting up the X-720 area where she works. The electrical power involved here is just a "drop in the bucket". The annual Power bill to operate this plant exceeds \$60,000,000.

## Power & Utilities Are A Must With Gaseous Diffusion Operations

### ELECTRICAL

An enormous amount of electric energy is required for the operation of the Portsmouth Area Gaseous Diffusion Plant. In 1963, for example, the facility consumed a total of 15,759,612,800 kilowatt hours of electric power. The current AEC-OVEC power agreement calls for a base delivery of 1,800,000 kilowatts around the clock — which is almost enough energy to supply the power needs of the entire state of Indiana. Despite the fact that the energy was delivered at an average unit cost of only 3,981 mills per kilowatt hour, the total cost to the AEC. was over \$60,000,000.

The power is supplied by the Ohio Valley Electric Corporation (OVEC), which was formed in 1952 by 15 investor-owned power companies of the Ohio River Valley.

### WATER TREATMENT

One of the most essential factors in the operation of a gaseous diffusion plant is water. Without water the operation could not run more than a few minutes. Not only is it mandatory to have water which is softened, clarified, as make-up, but there must be a constant, controlled, cooled supply at all times. The supply must be adequate to meet the demand at all times, and this supply must be controlled as to quality, temperature and volume.

The steam plant supplies steam for process, heating auxiliary buildings, and other various purposes.

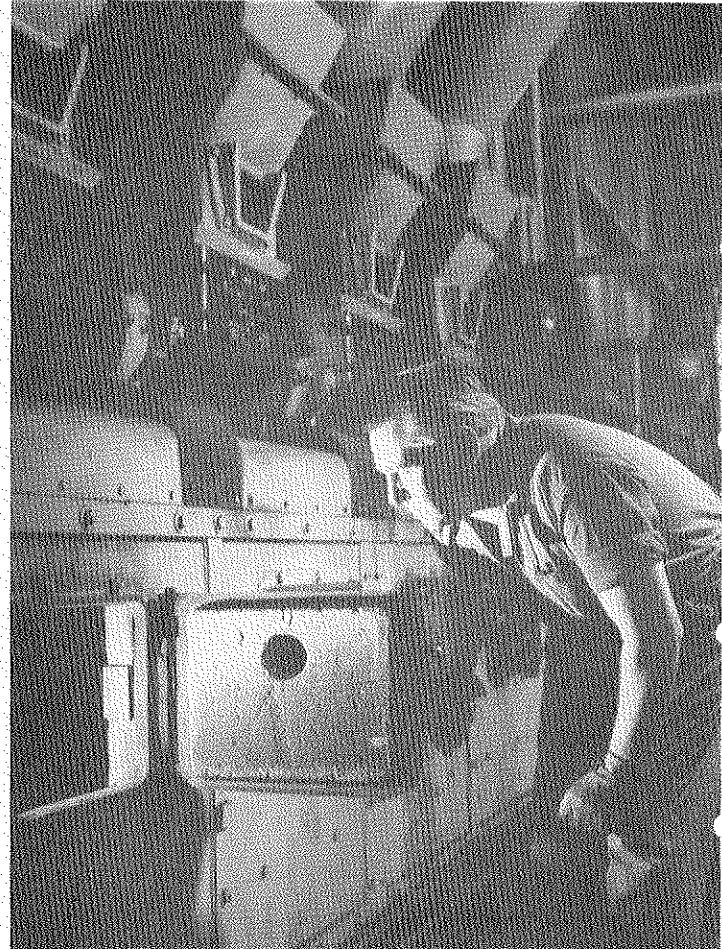
GAT's steam plant, located at the southeast corner of the plant, includes three steam generating units and the necessary auxiliaries. A fifty thousand ton coal storage area is located approximately 300 feet south of the building. A track hopper and conveyors deliver the coal to the coal elevator, which adjoins X-600.

There are five cooling towers, among the largest in the country, at Goodyear Atomic. Two are located at the X-630 pump house; two at the X-633 pump house and one at the X-626 pump house.

Cooling towers are an essential feature of the cooling system, for it is impossible and impractical to simply use the water on a once-through basis. The main reason for re-cooling the water after use is conservation of water and temperature control. In the cooling tower the water is cooled by exposure to air after each passage or cycle, allowing the same water to be used many times, thereby conserving water.

### IN MEMORIAM

Donna Rae Gillespie, 21, died Saturday, April 11, 1964, following an automobile accident. Her father, Robert H., is Supervisor of the SS material handling department.

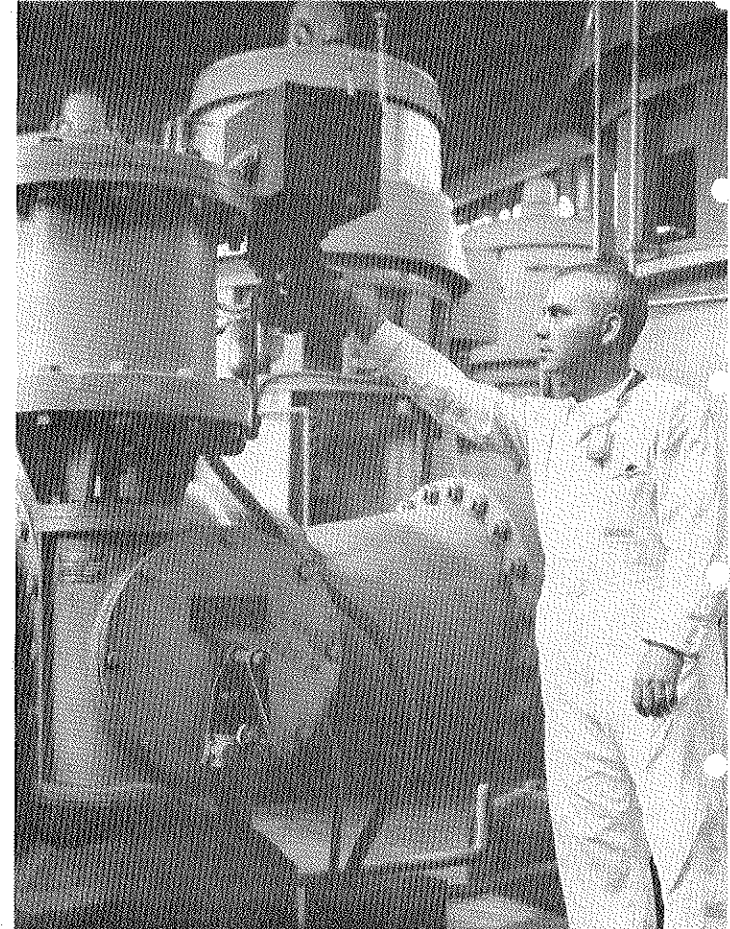


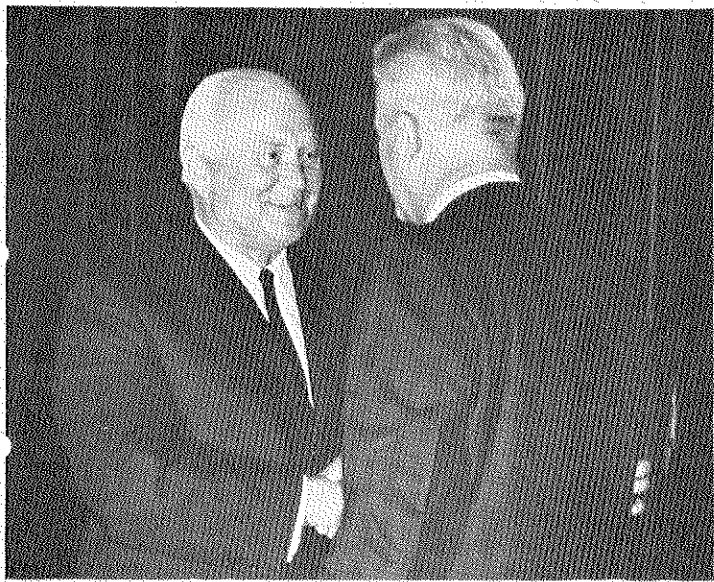
**THROW ANOTHER LUMP ON** — Arthur L. Gouldie, one of the Company's six Stationary Engineers, checks the fire box in the No. 1 boiler. Many GAT employees fail to realize the magnitude of this important facility. Last year, the steam plant required over 40,000 tons of coal. The average load approximated 100,000 lbs. of steam per hour.

**JUST A DRINK OF WATER** — Katherine Armstrong, Materials and Service Subdivision, perhaps doesn't realize that the sanitary water from the wells exceeds 2½ million gallons per day. In addition, this system supplies water for the boilers, hydrant fire system, air conditioning, and other sanitary usage.



**THE HEART OF THE RECIRCULATING WATER SYSTEM** — D. K. Barber, a Shift Utilities Operator, adjusts a rotary check valve of the RCW Pump Discharge Header. The Recirculating Water System (treated), through these pumps, supplies this plant with over 14 million gallons per day. The water is treated for use in the Cascade and the Hi-Pressure Fire Water System (sprinkler system).





A HEARTY HANDSHAKE is given by E. J. Thomas, left, to Russell DeYoung, successor as Board Chairman and Chief Executive Officer of Goodyear, following announcement to employees of top management changes.

## Directors Pay Highest Tribute To E. J. Thomas

**RESOLVED**, that upon his voluntary relinquishment of his responsibilities as Chairman of the Board and Chief Executive Officer, that Edwin J. Thomas be paid the highest tribute by his fellow Directors who view his decision with great regret.

For 48 years he has faithfully and loyally served Goodyear, 24 of which he has served as President or Chairman and Chief Executive Officer, providing leadership which has firmly established his company as not only the leader of the rubber industry but as one of the great corporations of the world.

He has exhibited courage, wisdom and great ability in dedicating himself unreservedly to the promotion of the company's best interests and those of its employees, customers and shareholders.

Ever humble but at the same time firm and confident, always human and daily practicing the humanities, he had vision even when visibility was limited.

His record now becomes an illustrious and vital part of Goodyear history, marking a period in which sales of the company rose from \$217,000,000 to \$1,731,000,000.

**BE IT THEREFORE RESOLVED**, in appreciation of his qualities and character, both as a man and as a leader, and as an expression of the highest tribute, that the Board of Directors hereby adopt this resolution, and direct that it be made an official part of the minutes of this meeting, and that a suitable copy, with the signatures of the Board, be presented to him with their fond hope that he may enjoy the health and happiness that he so richly deserves for many years to come.

## The Best Safety Mark Since '46

A new low in on-the-job injuries among the 130,000 employees of the Atomic Energy Commission and its contractors was recorded last year—the best since AEC was established in 1946.

Nearly half of AEC's contractors had no lost-time injuries at all in 1963.

Gravity was the principal single cause of fatalities and injuries connected with AEC operations during 1963. Of nine fatalities, four were caused by falls, two by moving vehicles, one by accidental electrocution, one by suffocation, and one as the result of burns.

The number of lost-time injuries during calendar year 1963 for each million man-hours worked by AEC government employees and AEC contractors was 1.49. This injury frequency rate compares with the National Safety Council's 1962 "all industry injury rate" of 6.19 and is second only to the communications industry rate of 0.98 among American industries. The atomic energy industry's injury severity rate—the number of days lost in relation to each million man-hours worked—was 40 per cent of that for industries reporting to the National Safety Council in 1962.

A survey of the Commission's operations for 1963 showed that 99.9 per cent of the 113,000 persons working with radiation received less than a 5 rem exposure during the year; 95 per cent received 1 rem, or less. (A rem is a unit of radiation exposure measurement.) The exposure standard adopted by the Commission for its own personnel and its contractor employees who are engaged in work which offers the possibility of radiation exposure is an average of 5 rem a year.

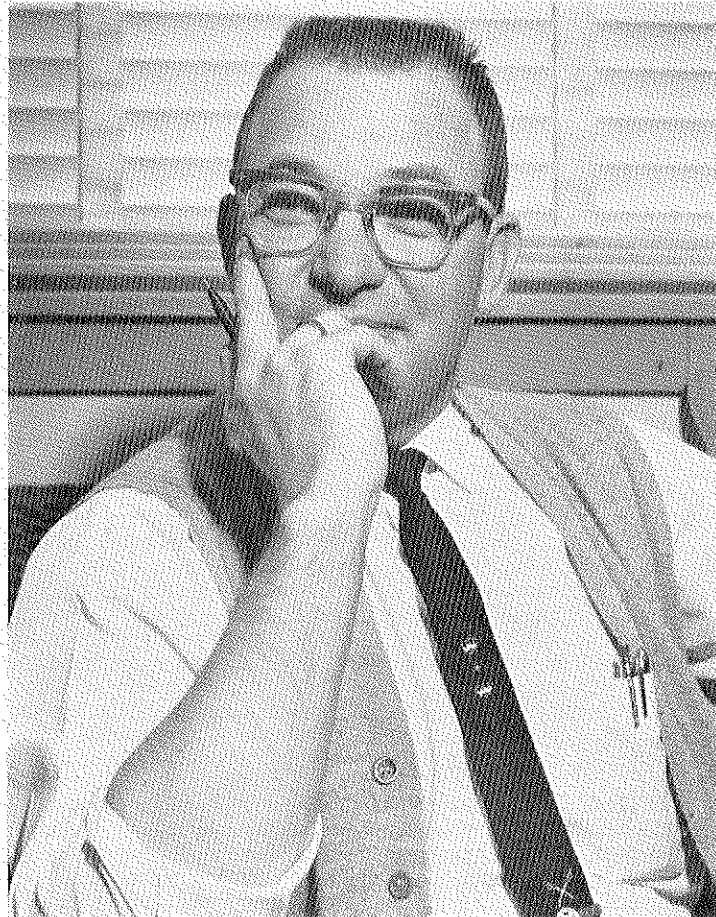
## Gracia New VP

(Continued from page 1)

A native of Cambridge, Mass., he came to Akron in 1928 after receiving a degree in chemical engineering from MIT. His work in research and engineering during the late '30's led to development of Goodyear's first synthetic rubber production plant. Many of the methods used in the plant were later adopted for use in the government-built plants that provided rubber during the emergency period of World War II.

In 1952, he was named General Manager of Goodyear Atomic Corporation. Under his direction, the plant was put into operation in record time.

Gracia returned to Akron in 1956 as Manager of Research and Development. Five years later he took over the responsibilities as Director of Research, General Products Development and Product Service functions, affecting all materials and products other than tires, in Goodyear's highly diversified product lines.



CARL WORTHINGTON . . . A Good Community Citizen

## A Family Affair

# The Name Is "Mr." In South Shore, Ky.

If you were to ask a resident of South Shore, Kentucky, who its leading citizen is — chances are the consensus would be Carl Worthington. An analysis of his community activities supports this claim.

Worthington is a foreman in the utilities operations department. He works "B" Shift. He joined Goodyear Atomic Corporation on July 1, 1953, as a utilities operator in training. On July 1, 1954, he was selected as an assistant foreman and promoted to foreman January 1, 1955. In addition to his present Shift, he has worked "D" Shift and "R" Shift. His responsibilities as Shift Foreman include the supervision of water treatment, recirculating water, sewage disposal plant, nitrogen plant, steam plant, and the air plant.

Worthington graduated from Carter High School, Carter City, Kentucky. He has attended Morehead State College and Ashland Junior

College, Ashland, Kentucky. A veteran of World War II, he was on active duty in the U. S. Navy for 31½ years.

A review of his community activities reveals varied community interests.

He is the Mayor of South Shore; Chairman of the South Shore Board of Trustees; Vice President of the Young Republican Club; and a Member of the Official Board, First Christian Church. On a county-wide basis, he is Co-Chairman of the Greenup County March of Dimes, and a member of the Greenup County United Fund Board.

In addition, he is a member of the Masonic Lodge, Eastern Star, Scottish Rite, and Shrine. He is a Past Master of the Greenup Lodge; Past Worthy Patron, Eastern Star; and a Past District Deputy Grand Master for the Masonic Lodge in Kentucky.

Carl and his wife, Helen, have three children. The children are Nancy, 10; Roger, 8; and Timothy, 3.

Community activities are a family affair with the Worthingtons. Mrs. Worthington is a Cub Scout Den Mother, Sunday School Teacher, Youth Leader in her Church, and Secretary of the Ladies Fellowship Club.

Both Mr. and Mrs. Worthington are very active in the Fullerton Parent-Teacher Association.

Goodyear and its employees salute Carl Worthington. A GOOD COMMUNITY CITIZEN!

## THE WINGFOOT CLAN

GOODYEAR ATOMIC CORPORATION  
A DIVISION OF THE GOODYEAR RUBBER COMPANY  
A DIVISION OF THE GOODYEAR TIRE COMPANY

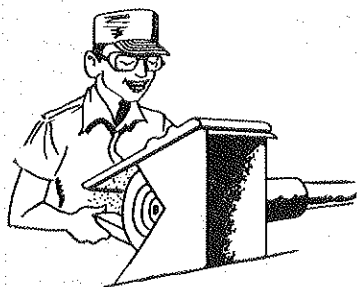
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## Your Eyes And Your Living



**WEAR  
EYE  
PROTECTION!**

It's hard to realize the hardship of being blind, to be unable to perform your regular job and enjoy living in your normal way. WEAR YOUR SAFETY GLASSES OR GOGGLES whenever needed — not on your forehead, draped around your neck, in your pocket or left on the workbench but OVER YOUR EYES. Wear them in a dusty spot or where there is a possibility of flying particles.



**NEW CHAMPIONS** — Co-captains Lloyd Sharrar (left) and Pete McCaffrey, carry the first-place trophy off the floor at Denver where the Goodyear basketball team won the AAU crown.

**3 To Olympic Squad**

# Akron Goodyears Win Amateur Title

After 50 years of trying, Goodyear basketball, took the lion's share of amateur honors in 1964.

And the climax will be the Olympic games where the United States court squad will be sparked by three Goodyear stars, Pete McCaffrey, Larry Brown and Dick Davies.

There was more glory for coach Hank Vaughn, who steered the Goodyears to the AAU championship in Denver, then led the AAU stars, seven of whom were Good-

yearites, to three consecutive victories over the cream of the NCAA to win the Olympic Trials in New York.

Vaughn will be assistant to the "Iron Duke," Henry Iba of Oklahoma State, the Olympic coach and one of the most respected men in basketball.

Goodyear entered the AAU tournament in Denver hard on the heels of three humiliating defeats by Phillips 66 at Bartlesville, Okla. But on the eve of the final tournament game with Phillips, Vaughn flatly predicted his team would win.

Subsequent events proved Vaughn the best seer in the business, because few experts shared his opinion. It was the first AAU crown Goodyear has won in 50 years of basketball.

Larry Brown, 5-10, former North Carolina University star, was named the tournament's most valuable player. Brown also sparked the AAU's convincing 101-94 win over the NCAA Whites in the Olympic Trials. The Whites numbered Ron Bonham, Cotton Nash, Les Hunter, Paul Silas, Billy Cunningham and Cazzie Russell on their squad.

McCaffrey was a natural for the Olympic team. He was top scorer in the Trials, getting a total of 66 points in three games. But Davies was given only an outside chance to make the squad. His great play in the Trials, including a record 90 per cent free throw mark, gained him a berth.

Besides his dazzling floor play, Brown wound up with 86 per cent at the charity line, hitting 19 out of 20 free throws.

## Goodland Transfers To Goodyear Akron

David C. Goodland, process engineering department, is transferring to The Goodyear Tire & Rubber Company, April 20, 1964.

A native of Wisconsin, he holds a bachelor's degree in chemical engineering from the University of Wisconsin. He is a Registered Professional Engineer in Ohio.

Prior to coming to Goodyear Atomic Corporation on July 19, 1954, he was employed by Union Carbide in Oak Ridge.

Mr. and Mrs. (Wandell) Goodland have four children . . . John, Jan, Jill, and Judith Ann . . . and reside in Portsmouth.

Goodyear directors increased the regular quarterly dividend of 25 cents per common share to 28 3/4 cents per common share, payable June 15 to stockholders of record May 15.

## Tryouts Slated For "The Gondoliers"

The Atomic Area Operetta Guild, the organization which brought to the area such memorable entertainment as "Naughty Marietta" and "Desert Song," will present for the 1964 season, the delightful Gilbert and Sullivan Operetta, "The Gondoliers."

Performances will be staged late in August, and in September, with rehearsals scheduled to begin early in May, on Monday evenings.

Tryouts for lead roles will be held on April 20, at the Zahn's Corner Elementary School, just off Route 124, between Jackson and Waverly, beginning at 7 p. m.

GAT employees included on the Guild's Board of Directors are: V. J. DeVito, uranium control and data processing subdivision; R. P. Nugent, chemistry department; W. C. Phillips, chemistry department; and Alice Pitts, library.

## Pike Women's Club Invites New Members

The next meeting of the GAT Women's Club of Pike County will be Friday, May 8, 1964, at the Lake White Club, beginning at 7:30 p. m.

The Club regularly meets on the second Friday of each month. Following the business meeting the members enjoy a round of bridge and canasta.

The Club Officers request that all members attend and bring a prospective member as a guest.

Reservations may be made by telephoning the following: Contact Chairmen: Mrs. J. S. Murrell (511), 947-5043; Mrs. R. M. Lozier (411), 947-4225; or Mrs. Charles Thompson (712), 947-4650.

Membership Co-Chairmen are: Mrs. G. R. Towler (761), 947-2658 and Mrs. G. E. Bobo (533), 947-2598.

In addition to being a social club, the Pike County Women's Club donates to several funds within the county. Among the organizations receiving financial contributions to date are: The Chillicothe Branch of Ohio University for its Development Fund; and an annual pledge to the Pike County Educational Assistance Fund. Donations have also been presented to the Pike County Library and the Waverly School Band.

# Classifieds

**FOR SALE**

**Billiard Barbells.** Includes single and double hand bars. Various weights up to 210 lbs. Like new. Asking \$50. Telephone Minford Spruce 4-5174.

**Used GE Automatic Washer.** Good condition. \$50. Telephone Chillicothe 775-7262.

**1/3 HP 110V Motor.** One HP repulsion induction 110-220 Volt Motor. Used Hamilton Automatic Washer. Two wheeled utility trailer. Eighteen (18') Mobile-Sportsman Camping Trailer. Priced reasonable. Telephone Jackson 988-2163.

GOODYEAR

# 'Round The World

For the first time in more than 40 years Goodyear tires will be available for the annual Indianapolis "500" race.

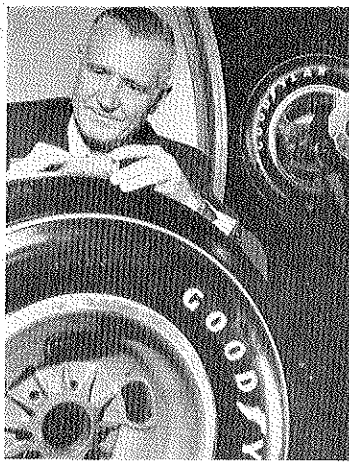
And Goodyear has developed a tire called the "Speedway Special" which tests indicate can go the full distance without a change.

In developing the line of tires for this year's auto classic, Goodyear brought large crews to the Speedway four times since the 1963 race. Each test series produced valuable information on speeds, wear, heat and car handling.

By testing with each type of car expected to run on Memorial Day, Goodyear found that the front and rear tires could not be standard for all types of cars, as they have been in the past.

Through a process of evolution, Goodyear determined the 11 different Indy tires it will supply. The line — widest ever offered to drivers and mechanics — includes front and rear tires for the Novis and different ones for the standard Offys. There is a front "tilt" tire available for each. For drivers of cars with independent suspension systems, there are three choices for both fronts and rears.

All tires are tube-type, reinforced with nylon, and contain tufsyn, Goodyear's long-wearing synthetic rubber. Two tread patterns are offered, one for independent suspension autos and another for fixed suspension cars.



**SPEEDWAY SPECIAL** — Victor Holt, President, measures the wide tread on a new Goodyear racing tire which tests have indicated can go the distance without a change in the Indianapolis "500".

A \$900,000 contract to produce wheels and brakes for the Air Force's C-141 Starlifter has been awarded to Goodyear's Aviation Products Division.

Under the agreement, the division will produce both original equipment and replacement wheel and brake units for the giant fan-jet cargo/troop carrier produced by the Lockheed-Georgia Company.

In addition to the Tri-Metallic disc brakes and forged aluminum wheels, the Aviation Products Division is supplying tires for the C-141.

Repairs on the Goodyear blimp Columbia are being made at the Marine Corps hangar at Santa Anna, Calif., and operations officials at Goodyear Aerospace expect to have it back in service early this summer.

The blimp was damaged when a sudden whirlwind hit it broadside last month while it was moored at Santa Anna.

The wind caused the nose stiffeners on the airship to tear loose, puncturing a hole in the envelope. It deflated, and the ship settled slowly to the ground. The gondola, rudder and other major parts escaped serious injury, and damage to the envelope or bag can be repaired.

## Here And There In The Nuclear Field

The contract with Mallinckrodt Chemical Works of St. Louis, Missouri, has been extended by the Atomic Energy Commission, for operation of the uranium feed material plant at Weldon Spring, Missouri.

Under the contract, the Commission provides the working capital and cost of operation and pays Mallinckrodt a fixed annual fee. The new contract period will expire June 30, 1966.

The Weldon Spring Plant, which represents a government investment of about \$60,000,000, has responsibility for official sampling of domestic and Canadian ore concentrates, and refining uranium ores and concentrates for manufacture high purity uranium salts and metal.

Mallinckrodt, which first began operations in the atomic energy field in 1942, currently employs about 600 at the Weldon Spring Plant.

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