# Process of Making Aluminum From Bauxite in Arkansas Mills Is Explained by the Operators

Purified bauxite from the Hurricane Creek Alumna Plant is shipped to the Jones Mills Aluminum Plant, only a few miles, where it is processed into aluminum ingots.

This new plant, the Jones Mills operation for manufacturing aluminum, takes the alumina, or now commercially pure aluminum oxide in powdered form, and processes it into aluminum pigs.

It would seem to the average observer that all one had to do to transfer the powder to metal and pour the ingots would be to heat it to a high temperature when it would take a liquid form.

This idea, if carried out, would result in an unusable charry mass entirely of waste materials. It would destroy the very qualities which make aluminum one of the most valuable wartime metals.

Not high temperature for 24 or more hours but electrolytic cells which fuses the moulten alumina is necessary to bring forth pure aluminum. By combining the use of electricity, for the electrolytic process and for heat, or rather the resulting heat from the electrolytic process, fusing the powder into a white hot mass at 1,260 degrees F. is accomplished.

**Plant Uses Much Electricity.**

But it is not the electrolytic process itself which makes necessary the huge plant at Jones Mills which will cost when entirely completed $33,000,000. It is the manufacture of the requisites for the anodes and cathodes used in the electrolytic process. Practically all elements used in the process are manufactured within the plant. All maintenance, including that of the largest assembly of transformers in the state of Arkansas, is carried on there.

Enough electrical equipment to supply half of Arkansas in normal times is used within the plant, it has been estimated, and enough electrical energy to supply the entire state will be required when the plant is in maximum production. The latter statement is also a comparative element contingent on various figures which can only be determined after maximum production is established.

In this reduction plant there are batteries of huge electrolytic cells in which the alumina from the Hurrican Creek plant is reduced to aluminum. Each battery of the enormous cells, which might be described as rectangular vats for clarity, is housed in a runway 750 feet long.

**Processes Described.**

The cells, or vats, consist of steel shells lined with a suitable refractory material for insulation with inner linings of carbon which serve as cathodes. The cathodes serve as the negative poles on the conducting of electricity through the alumna being processed into aluminum. The anodes or positive poles are 150 pound squares of carbon held at the top of the headed rectangular cells through which the electricity passes into the alumna and through the white hot liquid to the cathodes in the bottom of the cells.

This electroclytic action is as necessary to the process as is the heat which it develops to 1260 degrees F.

After 24 hours at this temperature and under the electrolytic action aluminum has been formed and is ready for pouring into huge vessels, electrically heated to keep up the temperature. The white hot metal passes through a spout into the pouring vessel which is lifted by a six-ton traveling crane for pouring into ingot moulds. When the ingots are cooled the processing of aluminum is complete.

More than a mile of these electrolytic cells will be in use when the Jones Mills plant is in full operation. One solid rubber belt in the plant is 24 inches wide and 7,600 feet long. Conduit cables used in some parts of the plant have an inch and a half of twisted copper wire.

**Much Carbon Used.**

The huge 150 pound carbons used as anodes are cast and fitted within the plant. Some plants have been known to use as high as 1,500 of these a day. Relining the cells is an operation necessary at intervals. About three-fourths of a pound of carbon is used for each pound of aluminum produced. Twelve killowatt hours is consumed in the production of one pound of aluminum.

In the electrolytic cells the pure aluminum settles to the bottom to be taken off. More alumina is added and the process goes on. The moulten aluminum must be skimmed to remove the remaining dross and electrolyte. Under the old process the aluminum was permitted to cool and was then reheated before the dross removing process. Now the molten aluminum is not permitted to cool before it is molded into ingots.

Aluminum's value lays in its light weight and tensile strength. Its specific gravity is 2.7, about one-third [illegible] other commercial metals. It j

Jones came to Little Rock and started the ball rolling. There followed construction engineers and plant erection experts. ALCOA already had such plants operating at Mobile, Ala., Massina, N. Y., and other points far departed from the aluminum mines. This great distance delayed production, added to transportation costs, and were, incidently, so close to threatened waters that their foreign supply was cut off. Again there was the danger of air attacks from the sea.

So with two plants, the alumina mill and the aluminum mill, were built almost over the source of 98 per cent of the nation's ore supply, in the Arkansas Bauxite area.

As the known requisites of alumina and aluminum manufacture are known the world over, and Germany and France have been big producers under the same processes, such information as is contained in this article is not prohibited. In fact many of the improvements in processes either originated, or have been added to and improved by German and French discoveries, and improved upon on all five continents.

# First Bauxite In Arkansas Mined in 1899

If one is to study bauxite and aluminum production, from the mine to the finished ingot ready for the rolling mills, which is accomplished for the first time in Arkansas under wartime pressure, the origin of the name should come first, and a study of its history next.

The name was first applied to a rock formation found in France in 1821 which was put to several industrial uses. An ore, found in the United States many years later, but of slightly different composition, was developed and put to the same uses.

Bauxite, as known in the United States, is used to make aluminum, but it has many other industrial uses. The chemical analysis of Bauxite used for commercial purposes has varying percentages of aluminum oxide ($Al_2O_3$), ferric oxide, ($Fe_2O_2$), silica ($SiO_2$) and titanium oxide ($TiO_2$) and water.

**Arkansas Discovery in 1897.**

Arkansas deposits were discovered in 1897 by State Geologist John C. Branner on Sweet Home Pike near the outskirts of Little Rock. Production in Arkansas began in 1899. A mineral not unlike the French Bauxite had been discovered near Rome, Ga., in 1883.

The Georgia product was placed in commercial production of aluminum sulfate in 1889. A few years after the Georgia find a similar ore was found near Rock Run, Ala., and mining of ore started there in 1891.

After John C. Branner's discovery of Bauxite a kindred ore was found in Tennessee, Virginia and Mississippi. All were small deposits when compared with the Bauxite area of Arkansas, although the extent of local deposits was not immediately determined.

In 1886 Charles M. Hall discovered the Hall process for making aluminum from alumina, and Paul Heroult, in France, developed a like process at about the same time.

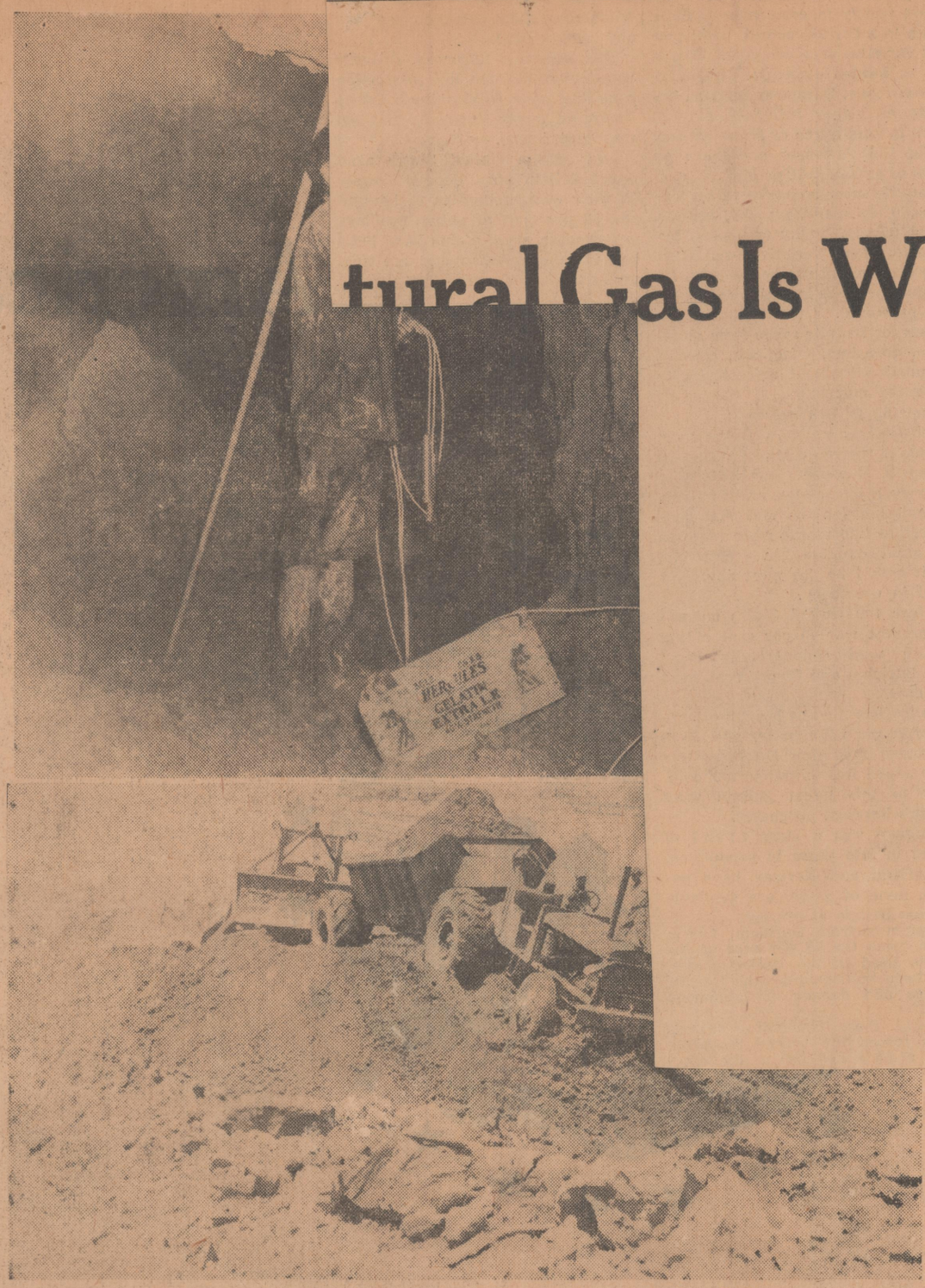
In 1888 Karl Josef Bayer perfected his process of taking aluminum hydrate from Bauxite in Germany. Bayer was issued a patent in the United States in 1894 and a plant bearing his name was established at Woburn, Mass., the same year.

**Many Know Deposits.**

The Bayer process with improvements remains the universally used method for manufacturing aluminum hydrate. This, when calcined, yields the oxide used for the Hall and Heroult processes.

All five continents have Bauxite deposits and some of the largest deposits have never been developed. Italy started production in 1905, India in 1908, Germany in 1914, Yugoslavia in 1915, British Guiana in 1917 and Surinam in 1922. Hungary, Russia, Greece the Dutch East Indies,

## Surface and Un[tural Gas Is We]



Undergroudn mining of Bauxite (above) is not unlike other ore production. Drills are used to bore into the deposits and then dynamite dislodges the lode. Here a shot firer is working dynamite and fuse back into the holes. (Bottom) Moving 15 yards at a load, these huge trucks pulled by tractors are handled over seemingly impossible hazards in the surface mines. To save time this tractor is dumping its load down a 45 degree angle.

August 23, 1942
Arkansas Democrat

## FEDERAL FUNDS LIKELY TO PAVE BAUXITE ROUTE

### Cut-Off Road In Poor Shape.

The War Production Board may assist Pulaski county in obtaining a federal grant for extensive repairs to Dixon road, known as the Sweet Home cut-off between Arch Street pike and Sweet Home pike, County Judge Newton said yesterday.

The road runs through the heart of the Pulaski county bauxite mining area and nearly all the ore removed from the mines is transported to railroads or a Metals Reserve Corporation stockpile over the road. The road was not constructed for heavy truck traffic, and has been badly damaged in many places, Judge Newton said. The county Road and Bridge Department has made repairs with gravel but this has been unsatisfactory.

A representative of the Metals Reserve Corporation, division of the Reconstruction Finance Corporation has indicated his agency may place the road on the list of the "musts." He predicted aid would be forthcoming.

### War Activities Increase Road Work.

War activities has caused much additional work and expense to the department. County employes have constructed five access roads to the Arkansas Ordnance Plant at Jacksonville, two roads to Camp Robinson and one road to the Maumelle Ordnance Works at Marche.

The county furnished materials, men and equipment for the roads and are maintaining them. The Work Projects Administration provided the black-topping and the labor for spreading it. The county also built a road around the east and north sides of the Jacksonville plant.

### Little Maumelle Bridge To Be Reopened Soon.

The cave-in of a bridge on Little Maumelle creek on the road between Ferndale and Highway 10 was the result of the war effort, it was said. Two heavy trucks engaged in hauling pipe and other materials for the water pipeline from the Lake Winona main line to the Maumelle Ordnance Works, met on the bridge and the structure collapsed. The structure has been reinforced and probably will be opened within 10 days.

Traffic to the defense installations has caused a heavy increase in traffic on the county's secondary roads, resulting in increased bills for culvert lumber and other road building materials.

The county was unsuccessful in its applications for assistance under the Lanham Community Facilities Bill, as well as other requests for federal aid, the county judge said. Workmen have been able to keep the roads in good condition despite the additional work.

## Deposits of Bauxite Found in Georgia.

Gazette 8-27-42

Washington, Aug. 27 (AP).—Aides of Secretary Ickes announced today that more than 500,000 tons of bauxite, the ore from which aluminum is made, had been blocked out in two Georgia counties, Sumter and Macon. Some of the bauxite may be used at once, they said. The new deposits were found in the Andersonville district in west central Georgia.

The Bureau of Mines and the Geological Survey reports indicate that more than 200,000 tons of the deposits contain better than 50 per cent alumina and rate as a "Grade B" ore.

# Arkansas Becomes Aluminum Manufacturing Center of United States

## Bauxite Ore Processed Near Mines

### U. S. Has $65,000,000 Investment in Two Huge Plants in State.

For the first time in history Arkansas, which now produces 98 per cent of native bauxite of the United States, has become the aluminum manufacturing center of the nation.

Straight line production of aluminum, from the mines to the finished ingot, ready for the rolling mills of the East, is completed within the bauxite area of the state.

The first ingot was poured Tuesday night, August 4, at the Jones Mills Aluminum Plant between Malvern and Hot Springs. This ingot is the prize possession on display at the administration building at the Jones Mills plant.

The erection of the two plants, the Hurricane Creek Alumina Plant for the preparation of aluminum oxide, known as alumina, and the Jones Mills plant for the processing from alumina to aluminum ingots, was completed from January 1, 1942, in less than one half the time the jobs would have been accomplished under normal conditions.

**Plants Cost $65,000,000.**

Under forced draft the construction of the $33,000,000 alumina plant on Hurricane Creek, and the $33,000,000 aluminum plant at Jones Mills, started operating with only a few days delay behind schedule. And weather and knee deep mud was not the cause of the delay.

After the original plans came the submarine blockade, and the shortage of ships which made it expensive and difficult to obtain Bauxite from Surinam. Surinam, prior to the United States entry in the war, furnished 75 per cent of the Bauxite used in this country. Arkansas then furnished 25 per cent.

The shortage of shipping bottoms, and the danger of loss of ships, forced the government to make plans for confining aluminum production to this continent. The result was a decision, after work was under way on the two plants, to increase the capacity so the greater portion of the aluminum needed in the manufacture of airplanes, and for other war uses, could be produced within the mining area of Arkansas.

This increase in the capacity, and in the cost, added many days to the construction period.

Today Bauxite in native form is brought from mines by truck, carried through the processing to the alumina stage on belts and mechanical elevators and conveyors, transported in waterproof railroad cars to the aluminum plant where it is processed into aluminum ingots without being touched by human hands.

**Wholly a Mechanical Operation.**

Starting from the mines, where either surface or underground operations are carried on to secure the ore, the entire operation is mechanical, aside from direction and control. Before weeks were consumed in the reduction and transportation. The bauxite was mined in Arkansas, shipped to an alumina plant hundreds of miles away, and in turn alumina was shipped hundreds of additional miles to the aluminum plant. From there it went to the rolling mills where it was made into aluminum sheets.

Mining bauxite is a varied program. The ore is found on or near the surface and it is found at great depths. The surface mining is done by hand and clam shell shovels after the overburden is removed. One company operating in the Arkansas bauxite area is removing more than 1,000,000 yards a month to reach deposits near the surface.

In surface mining all dirt down to the deposit must be removed before the ore can be taken. Often more overburden is moved than the amount of bauxite taken in the operation.

By drilling holes into the deposits the exact depth and extent is established before the overburden is removed. These tests also establish the amount of overburden to be removed and permit operators to figure the yardage that will have to be taken before the ore is reached. If the operation is too expensive because of the small amount of ore to be obtained, the location must be abandoned for another.

**Some Mines Deep in Earth.**

Underground mining of bauxite is much like mining any other mineral. The deeper the mine the more expensive the operation. Present mines extend underground hundreds of feet. Ore is brought to the surface in ore cars in trains pulled usually by an electric locomotive. Once on the surface ore going to the Hurricane Creek Alumina Plant is loaded into trucks by clam shells and hauled to the ore dumps at the alumina plant.

Clam shell buckets and gantry cranes unload the bauxite on a belt conveying system which discharges it in an enormous storage building. A hopper in the floor of the building discharges the ore onto another belt conveyor which carries it to the grinding building.

All tramp iron that may be present is first removed by the passing of the ore over magnetic pulleys. It is then dropped into a primary hammer mill. A screw conveyor carries the crushed ore to a bucket elevator which hoists it to the screen feed bins located at the height of an average six story building. These bins discharge the ground ore into vibrating screens which separate the fine material from the course.

The oversize tailings are carried by conveyors to special bins and then fed through two secondary hammer mills which grind the coarse Bauxite to a 100 per cent fineness. Thus all the ore is prepared for the next process as it reaches the form of a fine powder.

Lump quicklime is unloaded by a track hopper from freight cars onto a belt conveyer which carries it to the grinding building. Grinding of lime is done in another hammer mill. The two ground raw materials are carried by screw conveyers and bucket elevators to the fine material bins in an adjoining building.

**Bauxite and Lime Mixed.**

Thees materials are spouted by gravity into hoppers. Charges of bauxite and lime are weighed at regular intervals with the relative amounts of each used in the mixture depending on laboratory analysis of the bauxite and the liquor which is to be mixed before being processed.

The liquor is a solution of caustic soda which dissolves alumina from the bauxite, forming a solution of sodium aluminate and leaving the impurities behind as it moves on to another process. In order of usual content impurities are iron, oxide, titanium oxide and silica.

An electric timer horn blows at regular intervals. At this signal the operator drops the charge from the hopper into a mixing vessel below. (Mixing vessels aren't kitchen size utensils. They hold thousands of gallons.)

A stream of liquor flows into the mixing vessel below where rotating paddles (weighing tons) stir the contents before the liquor is discharged from the mixer and pumped to the next building where the digesters are located.

In the digesters heated liquor is added and steam is used to raise the temperature of the whole. The thinned liquor flows to digesting vessels which are equipped with stirring paddles. During the travel through the digesters the liquor is kept at a high temperature to allow full chemical reaction.

On leaving the digesters the sodium aluminate liquor with the red mud still suspended in the solution is pumped to filter presses. In a multiple washing and filter process here the red mud is removed to be carried away by a stream of water to the point of disposal.

**Huge Tanks Are Used.**

Liquor reduced to a thin flow as the result of the mud washing is conveyed through a trough to the filtrate tank located just outside the filter press building. From here it is pumped to a series of elevated coolers. Liquor from the coolers flows into a storage tank below and is pumped to the precipitation tanks. Further cooling is accomplished during summer temperatures as the liquor moves on.

Precipitating tanks are round, 24 feet in diameter and 75 feet high. In the tanks certain charges are added while the liquor is circulated for from 30 to 60 hours.

When circulation is halted the contents is pumped into thickeners where the hydrate is separated from the liquor, with the final preparation being accomplished by tray thickeners. Clear liquor overflowing the tray, as substances settle, is used over again in the following process.

The remaining hydrate settling in the bottom of the thickeners is removed to pass through a series of washing thickeners. These thickeners are enormous tanks 75 feet high. In passing through several thickeners certain treatments are carried on. The washed hydrate is then pumped to a storage tank in the calcining department.

From the bottom of the storage tank the hydrate flows by gravity to filters which control the discharge into screw conveyers feeding the rotary kilns. These kilns are nine feet in diameter and 250 feet long.

**Enormous Heat Required.**

The material leaves the kilns at 1,800 degrees Farenheit after having been dried to a powder in this process. The hot alumina passes through a refractory spout into a rotary cooler where the temperature is reduced by air blasts.

On leaving the coolers the alumina gravitates to a conveyer which elevates it to the top of the shipping bin. From here the finished alumina is loaded into water tight cars for removal to the Jones Mills Aluminum Plant where it is processed into aluminum ingots. Any moisture after it reaches the pure powder alumina form will damage it extensively.

The huge Hurricane Creek Alumina Plant resembles a large steel mill. First impression of one approaching the plant, who has visited Pittsburgh, is that they are on the outskirts of the "steel city."

Tanks and building extend to six and seven story heights when compared with business buildings. Giant cranes, clam-shell shovels, overhead covered conveyers, a great hodge-podge of steel and roofing, 75 foot tanks and other equipment form a nightmare of irregularities in structures.

L. H. Crudden is operating superintendent at the Hurricane Creek Alumina Plant and F. A. Billhardt is superintendent of construction. Both are connected with the Aluminum Company of America which constructed and will operate both the alumina plant on Hurricane Creek and the aluminum plant at Jones Mills for the government.

## State's First Aluminum Ingot

—Democrat Photo.

**Regional Manager Thomas C. Jones, of the Aluminum Company of America, and General Supt. Harry C. Slagle, hold the first pure aluminum ingot manufactured at the Jones Mills Aluminum Plant. This first production was on August 4. Mr. Slagle was transferred here from Pittsburgh, Pa. Mr. Jones was the key man on the ground in the Arkansas Bauxite area and it was his mission to co-ordinate and speed construction throughout the development of the $66,000,000 program at the two separate mills.**

## Housing Units Provided For Mill Workers

In all 875 units will be erected to house the workers at the Hurricane Creek Alumina Plant and the Jones Mills Aluminum Plant, according to the program of the Federal Defense Housing Administration.

Many of these will be two-family units of four rooms each of pre-fabricated materials that are being erected within a single working day. Other frame structures, 50 in number, have been erected to house the construction crews at the plants. These will be diverted for the use of permanent workers as soon as the construction is completed.

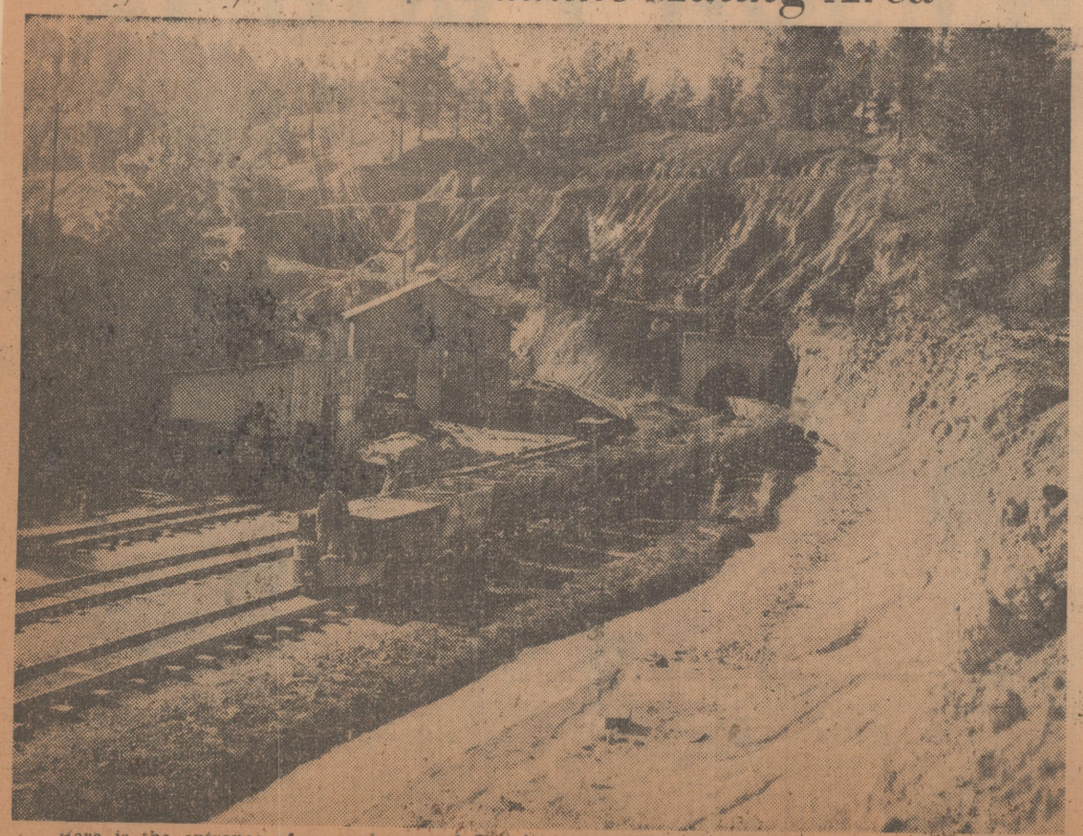
In the town of Bryant, near the Hurricane Creek Plant, a 50-unit FHA program is under way.

Most of the construction and operating workers at the plants have been living in Hot Springs and Little Rock. Some live in Malvern.

Arkansas Democrat 1-31-45

More than 2,000,000,000 pounds of aluminum were used in United States munitions and airplane plans in 1944.

## Every Day Scene in Bauxite Mining Area



**Here is the entrance of an underground Bauxite mine with a string of loaded cars being pulled to the surface by an electric mine locomotive.**

## Alumina Plant Gets New Devices

Washington, Jan. 28 (AP).—Additional machinery costing about $12,000,000 is being installed in the huge Hurricane Creek (Arkansas) Alumina Plant, Congressman Norrell (Dem., Ark.) said today.

The new equipment is for the lime, sinter and soda process, Mr. Norrell said. He said the equipment will make it possible to reprocess certain red clay which now is discarded, and extract from it additional alumina which now goes to waste.

Mr. Norrell said the new processing methods will enable the plant to use poorer grade bauxite. He said installation of the machinery is about nine per cent completed. He believes that no new buildings will be constructed.

Alumina processed in the Hurricane Creek Plant is sent to the Lake Catherine (Arkansas.) Aluminum Plant.

Arkansas Democrat 12-2-44

## Aluminum Production Needs Odd Mineral From Greenland

Washington, D. C.—Use of more than two billion pounds of aluminum in U. S. airplane and munitions plants in 1944 has called attention to cryolite, the little-known mineral that opened the way to the industrial use of aluminum, the most abundant of all the metallic elements found in the earth's crust.

Commercial cryolite all comes from the southwest corner of ice-covered Greenland, says the National Geographic Society. It is mined near the town of Ivigtut, in a pit several hundred feet across, and about 200 feet deep.

**American Discovery.**

Ivigtut, principal port on the Arsuk Fjord, had about 300 residents before the war. Situated on a bare hillside, it is a typically drab mining town. Many of its homes have electricity and central heating. The income of a miner exceeded the salary of the Danish governor of the island.

The mine is about 1,850 miles northeast of Philadelphia, on the great circle, but the distance ships travel in bringing the mineral to the Pennsylvania port is much greater. Prewar imports entering through Philadelphia's harbor had increased to 25,000 tons a year.

The town of Ivigtut owes its prosperity largely to the discovery of an Oberlin College student, Charles Martin Hall. A chemistry course interested him in the unsolved problem of reducing aluminum ore to a metal usable in industry. In 1886 he discovered that metallic aluminum could be electrically separated from alumina, the white, powdery aluminum oxide obtained from bauxite, when melted with cryolite.

Working in a laboratory set up in the family woodshed, the 22-year-old student discovered the electrolytic process that was eventually to prove the greatest factor in reducing the cost of aluminum to less than 20 cents a pound.

In 1852, produced by other processes, it was valued at $545 a pound, more precious than gold. The first aluminum produced by the new process was made by Hall over the fire of the kitchen stove.

**Like Packed Snow.**

If the production of aluminum depended entirely on the use of natural cryolite, that mineral would be about as important as aluminum itself. But chemical analysis has disclosed that cryolite is a sodium-aluminum fluoride. Now a substitute can be made synthetically, and either the natural or artificial cryolite can be used.

Cryolite has the appearance of hard-packed snow. It is a quartz-like substance that the Eskimos thought was a special kind of ice. They found they could melt it over a candle flame.

It was discovered by the Danes in 1794, and has also been used in the manufacture of glass and enamel ware, and in the making of some insecticides.

# Autumn In The Ozarks

Narrow, restful, peaceful valley, stenciled with rushing rippling rivulets, mirrowed by cooling lakes of blue, ruggedly framed in rock-ribbed hills, richly embellished with colorful forests; truly a scenario of unsurpassed beauty —a valley in the Ozarks.

All varieties of trees are collectively engaged in heeding the silent summons to dress for autumn—to change their robes of vivid green to subdued tans and somber browns, in evidence of the first sharp sting of invading winter.

I pause and hold my breath while my bewildered eyes feast upon the glamour, as each whispering breeze wafts down torrents, clusters and sheets of withering leaves; spreading a rich and beautiful blanket, replacing the gay carpet of green that has faded in autumn sun.

Another day, a sharper wind. Clouds hover low, cold rain descends, a harsher season calls. Through my window I catch the spell of shrouded gloom; a dome of dismal gray so deep overhead, there's not a tiny slit of blue to let the smallest sunray through.

Now, as the fog and mists disperse, I scan again the lovely vale, flanked on each side by sugar maple trees, each an array of refined delicacies of beauty which the finest touch of mortal brush can only feign. Some are vividly scarlet, some mellow and subdued, some glamorous, and some pastel, some like steeples of glowing gold, others blazing torches of flaming red, towering from rifts and pillows of shaded foliage, but all a grand assembly of constantly changing tints and colors.

The giant white oak with its fascinating color of port wine—no wonder we grow dizzy looking at it. The black oak in its favorite dress of scarlet and maroon, the gum tree robed in royal purple, co-mingled with old rose, offers worthy competition to its neighbors. The elm dons a coat covered with spangles of yellow-gold; while the dogwood is clad with oval leaves rimmed in gray, with centers softly blending into a delicate pink, whose daintiness the forest envies. Colorful supremacy seems to be the urge of every exhibit.

As I view this panorama of grandeur my thoughts are buried in a reverie of retrospection. I wander back down memory's lane through the fleeting years of life's short span, through the valley of sweet and bitter memories, across the speechless vista of wayward years, back to my first childhood memory of autumn. Then as I recount the years, I am convinced that each succeeding autumn is richer, sweeter, grander and more glorious.

Now, as the golden sun, in all its pomp and splendor, seeks rest beyond the western slopes; as it bids adieu to another glorious day—flinging its goodnight kiss back through the canyons and over the crags—when its last magic touch of strands of gold nestle closer and tenderly linger around the fast fading halo of nature's loveliest bouquet, Ozark autumn, nature's masterpiece—blends into the twilight and is buried in the shadows of a vanishing day. Thus, the vivid reality of unsurpassed beauty is transformed into sweet and cherished memories.

Not banished, not dead, but asleep in peaceful solitude; hurrying to mix with the elements and be resolved again to earth; yet in due season to come again in grandeur, excellence, magnificence and glory, to amaze, to comfort and to inspire the children of nature and glorify the Author of all things beautiful.—H. Frey Wilson.

### WITH COWS AND HENS.

By dairying, Mrs. E. R. Davis of Central does her part in the Food for Victory campaign, according to Ruth Fairbairn, north Sebastian county home demonstration agent.

Mrs. Davis herself milks 16 cows twice daily. During the past year she has made 3,120 pounds of butter, that sold for an average of 40 cents a pound. About 60 pounds a week are sold to Camp Chaffee, which is near by.

Forty-five pullets have been raised to increase Mrs. Davis' flock of 50 hens.

Arkansas Gazette 12-13-42


## *Southwest Power Pool Congregates Electricity From Six States To Transform Native Bauxite Into Precious Metal For Airplanes*

Invading Axis strongholds in ever-increasing numbers, sleek and shiny American bombers—made from aluminum processed in Arkansas from the state's own bauxite deposits—are dealing death and destruction to the enemies of democracy!

High upon hillsides and deep in the bowels of the earth, thousands of dirt-streaked miners continually dig bauxite bearing ore to be transformed into Dive Bombers and Flying Fortresses.

In never-ending procession, puffing locomotives haul it to alumina plants to be precipitated into fine white powder—alumina. Then it is transported again to the huge aluminum reduction plant on Lake Catherine, where great charges of electricity transform it into the featherweight of metals—aluminum, ready to be formed into large sheets for use by airplane plants.

It is a new and tremendously important contribution that Arkansas is making to the war effort. For years the state's beds of bauxite have been utilized to a small extent in producing aluminum. But because South American bauxite could be brought into this country far cheaper than its own deposits could be used, the foreign ore prevailed. And it was not until Axis submarines halted imports that necessity forced the utilization of Arkansas's latent supply.

**Requires Great Power Supply.**

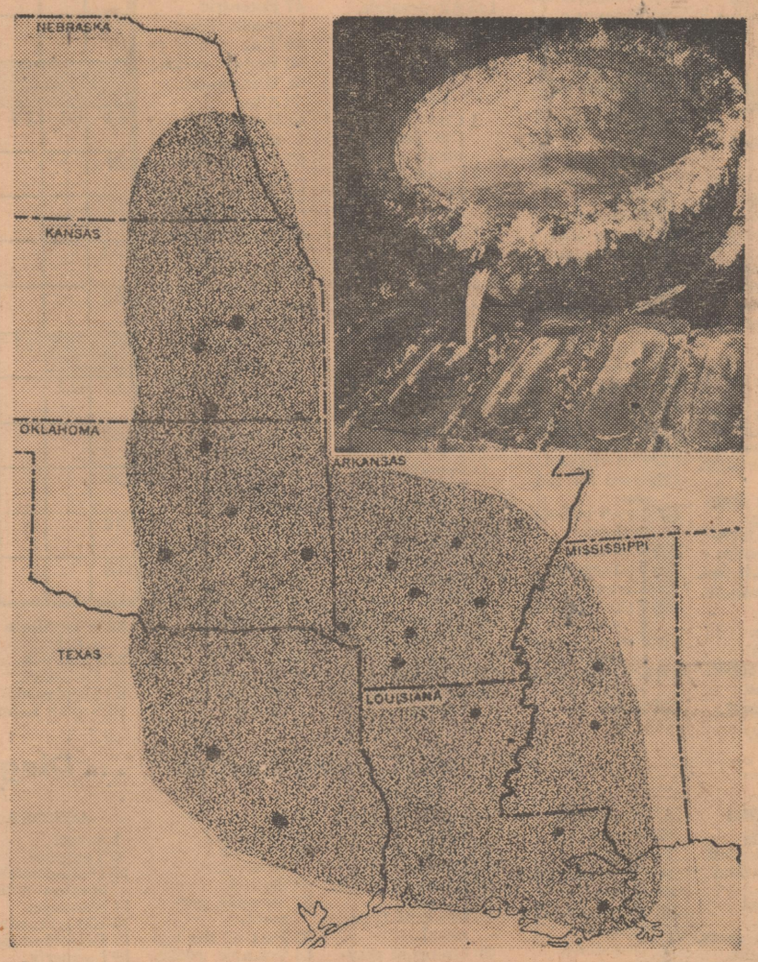
Because the production of aluminum requires great quantities of electric power—from 10 to 12 kilowatts-hours per pound—the projected production of 100 million pounds of aluminum per year in Arkansas at first seemed to the uninformed to be an insurmountable problem. It meant that one aluminum plant would require far more power than the entire state ever had used. And since it was planned to install a power plant at the aluminum mill, it meant that such tremendous amounts of power would be required for only a short time—just long enough for the aluminum mill's own power plant to be completed.

But because experienced electrical engineers of power companies knew that great quantities of power could be made available almost instantly by interconnecting separate systems, the problem presented difficulties but they knew it could be solved.

**A. P. & L. Turns Trick.**

The Arkansas Power & Light Company, largest of the state's electric companies, took upon itself the responsibility of supplying these power requirements. The way the company accomplished this task is one of the brightest spots in the history of voluntary co-operation to further the war effort. Within a few days after announcement had been made that an aluminum plant was desired for the state, 10 companies in Arkansas, Louisiana, Mississippi, Texas, Oklahoma, Kansas and Nebraska, agreed to pool their resources and guaranteed an ample supply of power for it.

Although this meant the immediate expenditure of nearly five million dollars of their own funds, the companies agreed without hesitation to make this contribution to the war effort. They realized it meant taking a tremendous business risk—that they might never get back all of the money they were investing. But they also realized that to win this war all forces and all agencies must exert themselves to the limit, and they knew they would be making a lasting contribution to Victory.




*Shaded area—larger than all England!—is territory embraced in Southwest Power Pool, formed voluntarily to supply electricity for Arkansas aluminum plant. Inset shows how aluminum—which requires great amount of power—is poured from pot into ingots.*

**Giant Power Pool Formed.**

Thus was formed the Southwest Power Pool, which this week rounds out nine months with as fine a record of performance as any electric operation ever achieved. By construction of a few high tension transmission lines, the power output of some 50 major generating plants and more than 100 small scattered plants was made available. More than 10,000 miles of high voltage transmission lines are being utilized to make power available to the aluminum plant. In order to operate such a vast grid, immediate telephone service was essential, so wireless telephones that use the transmission lines to carry the voice were built and installed.

This power pool, extending from Omaha on the north to New Orleans on the south, embraces an area larger than the whole of England. And the transmission systems voluntarily interconnected are bigger than the famous British "Grid System" which has been so widely publicized.

**Big Job Done.**

It was December 18, 1941, just 11 days after Pearl Harbor, that the Power Pool contracted to deliver on July 1, 1942, power for operation of the aluminum plant. To get this job done in time, construction crews went to work simultaneously in Texas, Oklahoma, Nebraska, Arkansas and Kansas. Starting from scratch, their work was completed in less than six months, although lines had to be surveyed by airplane, right-of-way had to be bought and cleared, poles had to be erected and wires strung. And all the while the 10 participating companies were taking care of their regular business and additional business brought on by location of other war plants in their territory.

The contract called for the power to be delivered on July 1, 1942. The Arkansas Power & Light Company and the nine companies co-operating with it had power ready on that date. But because construction of the aluminum plant had not progressed as rapidly as had been planned, it was a full month later before the aluminum plant could begin taking power.

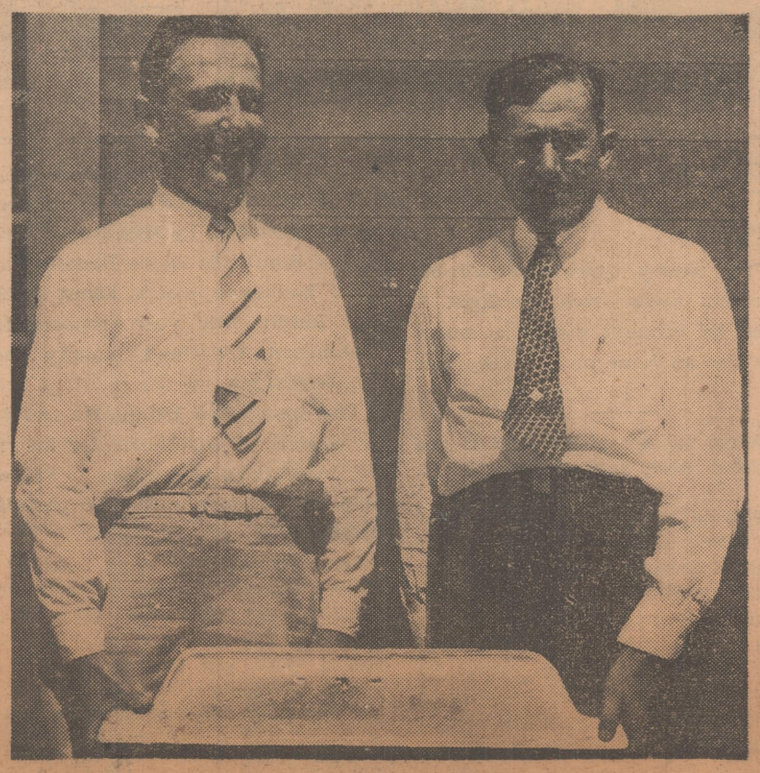
**Pool Makes Arkansas History.**

It was an historic moment on that day in August, 1942, when the first ingot of aluminum ever produced in Arkansas was poured at the Jones Mills plant on Lake Catherine. It was the first time that Arkansas bauxite had ever been processed into aluminum in Arkansas. Since then there has been a continuous flow of power from the Southwest Power Pool to the Arkansas aluminum plant.

The co-operating companies and the locations of their general headquarters are:

Arkansas Power & Light Co., Pine Bluff.
Southwestern Gas & Electric Co., Shreveport, La.
Kansas Gas & Electric Co., Topeka.
Lousiana Power & Light Co., New Orleans.
Mississippi Power & Light Co., Jackson.
Nebraska Power Co., Omaha.
Oklahoma Gas & Electric Co., Oklahoma City.
Public Service Company of Oklahoma, Tulsa.
Southwestern Light and Power Co., Chickasha, Okla.
Texas Power & Light Co., Dallas.

Every feature of this gigantic undertaking was a voluntary contribution to the war effort. It is doubtful if so much could be accomplished so speedily under orders. Evidently the Axis bullies who think that eveything has to be done by orders never figured on the American system of free enterprise and its capacity for co-operation, or they never would have picked a fight with Uncle Sam.



*Officials of aluminum plant hold first ingot of this precious war metal ever processed in Arkansas—poured August 1, 1942, after being manufactured with power from Southwest Power Pool.*

# Aluminum Shutdown Deferred

Ark. Gazette 1-4-43

Washington, Jan. 4 (AP).—Members of the Washington and Oregon congressional delegation obtained today what they accepted as a promise from the War Production Board that no aluminum plant in the Pacific Northwest would be shut down until after further study of the nation's aluminum program.

Senator Bone (Dem., Wash.) said after a conference with Philip Wilson, chief of the WPB light metals division, that the delegation learned from Wilson that he had no figures on which to determine whether it would be more economical for the government to cancel its contract for 646,000,000 pounds of aluminum annually from the Shipshaw plant in Canada than to close American plants. The Canadian plant was financed by the United States at a cost of about $67,000,000 to be repaid in aluminum. Members of the delegations have contended it would be better for the government to pay five cents a pound penalty for aluminum contracted for and not taken from Shipshaw by the United States than to close American plants and permit the Canadian concern to continue to furnish the metal.

Bone said aluminum produced in hydro-electric plants in the Northwest cost 15 cents a pound against 21 cents a pound at the Canadian plant.

## Assails Shutdowns Of Aluminum Plants.

Pittsburgh, Jan. 4 (AP).—N. A. Zonarich, international president of the C. I. O. Aluminum Workers of America, today charged the War Production Board with ignoring civilian needs and possible future military needs in closing aluminum plants.

Zonarich, noting that there has been no manufacture of aluminum cooking utensils, power transmission lines and equipment, aluminum foil and other peacetime civilian necessities since before the war began, said:

"A proper stockpile of aluminum should be built up now that it is possible and feasible. The president and other high officials tell us that the European war is far from won. We cannot tell when there may be a sudden change in requirements and, therefore, an adequate reserve must be built up."

He suggested a committee composed of management, labor and government be set up to make decisions as to which plants ought to be shut down.

While big aluminum plants at Badin, N. C., Alcoa, Tenn., and Massena, N. Y., are being shut down, Zonarich declared, the WPB is purchasing aluminum from a plant in Canada financed by the United States government.

He also charged that a number of bauxite (aluminum ore) miners in Arkansas had been laid off, but that shipments of bauxite still are being received from South America for reduction in American aluminum plants close to bauxite sources.

Arkansas Gazette 2-22-43

## Aluminum Production In 1943 Up 75 Pct.

Washington, Feb. 21 (AP).—Production of primary aluminum in 1943 totaled 1,800,000,000 pounds, a 75 per cent increase over 1942 the War Production Board reported today.

A canvass of all United States production reports, the board said, showed peak production of primary aluminum was reached during the final quarter of 1944, when average monthly production was 185,000,000 pounds.

Aluminum recovered from secondary sources during the year exceeded 500,000,000 pounds, the WPB reported, up sharply from the 370,400,000 pounds recovered in 1942.

During 1943 Canadian aluminum snt to the United States amounted to 428,700,000 pounds, compared to the 262,800 pounds Canada shipped to the United States in 1942. The WPB recently ordered a number of aluminum production lines closed down because the output of primary aluminum exceeded combined military and essential civilian requirements.

# WPB Desires Confederate Home Ore

Arkansas Gazette
Jan. 10, 1943

Reports that sentiment attached to the aging Confederate Home may give way before the nation's need for bauxite were confirmed yesterday when Governor Adkins said he was informed the War Production Board desires the aluminum-producing ore underlying the institution.

The governor said he would take no action until an official request for the bauxite deposits is received. He said the United Daughters of the Confederacy will be consulted before any move is sanctioned.

A 1941 survey of the 40-acre tract, lying a stone's throw from the Sweet Home bauxite deposits, indicated it contained about 350,000 tons of high grade ore. An official of the Republic Mining and Manufacturing Company estimated the reserve as much higher.

On the basis of prices being paid for Sweet Home ore, the state deposits probably would produce about $1,500,000 or more. The first indication that early action was considered came Friday when H. K. Thatcher, executive director of the state Agricultural and Industrial Commission, telegraphed the state Geology Department from Washington for an estimate of the total deposits beneath the Confederate Home property.

**Home Needed for Inmates.**

"Any plan to develop the property would require an investigation of possible housing facilities for the five remaining Confederate veterans and the 80 wives and daughters of veterans now in the home," the governor said.

One official suggested a one-story building might be constructed on property of the Arkansas Schools for the Blind and Deaf on West Markham street.

The Confederate Home appropriation is $53,920 a year, which provides $1.43 per patient daily. Of that figure, 65 cents is allocated to salaries for 50 employes, leaving 78 cents for maintenance and care of patients.

# Aluminum Cutback To Be Lessened

Gazette Jan. 10th 1943.

Washington, Jan. 9 (AP).—A top official of the Aluminum Company of America, explaining cutbacks in Alcoa aluminum plants, said today that excess production would be an unpatriotic waste of both manpower and scarce fuel.

"A number of units" for making aluminum have been closed down by the company, I. W. Wilson, Alcoa vice president in charge of production, said.

There were these other developments affecting an industry on which the government alone has spent $500,000,000 for new plants and which now is producing far in excess of military needs:

1. The War Production Board reportedly was preparing to announce that currently planned decreases will be closer to 25 per cent than to the 40 per cent slash officially announced last week.
2. Industry sources said the contemplated cuts still would leave a surplus of supply over demand for the light metal, although structural shifts from steel to aluminum in some munitions are being studied.
3. Shutdown of about 17 lines, both government and privately owned, were said to be planned, including four halted by WPB last week. Alcoa is closing five of the 12 lines at its plant in Alcoa, Tenn., biggest in the country.

Such action would cut production over 500,000,000 pounds a year, or about one-fourth of the country's capacity. The nation, however, has never produced at capacity. Four West coast lines, finished last year, have never been brought into production. At first they couldn't be manned; later they remained idle because of the surplus.

Wilson's statement, declaring continued overproduction "seems patently inconsistently with the cause of Allied victory" when both coal and manpower are scarce, followed charges by the C. I. O. Aluminum Workers of America. The union's president, N. P. Zonarich, asserted Friday that the cutbacks were due to "collusion to advance private interest" and were "depriving the military forces and the civilian population of vital aluminum products."

# ALUMINUM FOR WAR PROGRAM FAR OVER TOP

Arkansas Gazette
11-3-43

## Gains by Industry Prodigious.

(By the Associated Press.)

Washington, Nov. 2—It cost a billion dollars plus, but the aluminum-for-war work is over the top, producing 100,000,000 pounds in excess every three months.

Arthur H. Bunker, director of the Aluminum and Magnesium Division of the War Production Board today unfolded the hitherto secret story of prodigious growth from a pre-war midget to an industrial giant.

Highlights of the report:

When the rearmament program began in mid-1940, the United States produced a limited amount of aluminum unsuited for war needs, and almost no magnesium.

Fabricating equipment could not be converted to military production, and a billion-dollar fabricating plant system was built from the ground up.

Plane production was measured in dozens per month; in October, 8,300 units were produced, each utilizing light metal.

Bunker estimated the following production increases for 1943, as compared with 1939. Domestic bauxite, 1200 per cent; aluminum tubing 300; aluminum sheets, 700 per cent; aluminum rod and wire 1200 per cent; extended shapes, 1000 per cent; aluminum forgings, 4,500 per cent.

Aluminum supplies for the fourth quarter of 1943 were set at 871,200,000 pounds, almost 100,000,000 pounds in excess of the 774,000,000 pounds required.

Scrap aluminum salvaged for resmelting now amounts to 70,000,000 pounds a year, double the total pre-war United States production of primary aluminum.

Employment in the industry has grown from 30,000 in 1939 to 200,000 in 1943.

Present annual requirements of the industry include: 200,000 tons of petroleum coke for furnace electrodes; 500,000 tons of soda ash; 60,000 tons of sulfuric acid; 1,000,000 yards of filter cloth; 30,000,000,000 kilowatt hours of electricty a year.

### Over-Supply Problem Faces WPB Executives.

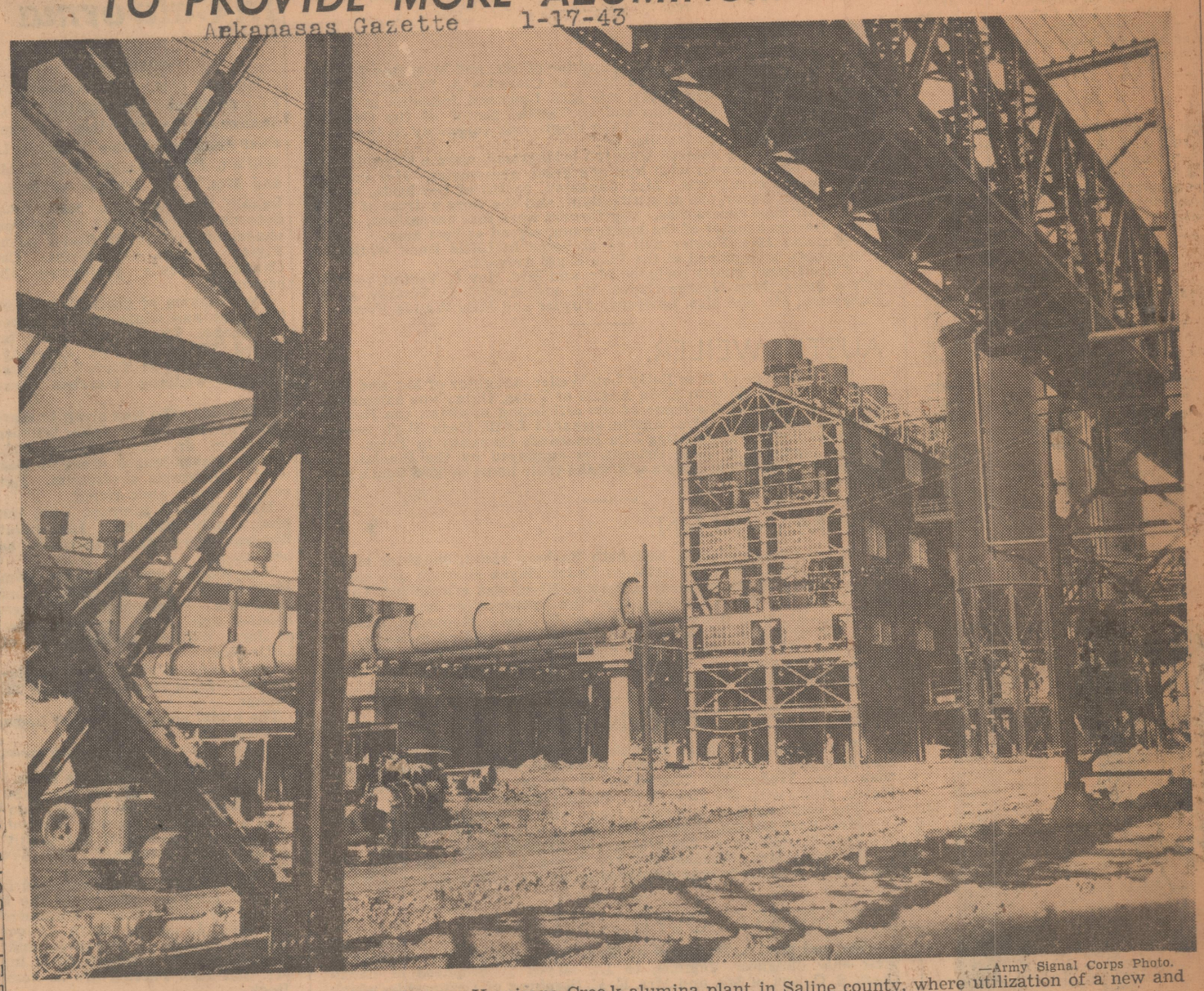
Bunker reported that the labor supply is almost the only remaining production headache in the light metals picture. He estimated that 67,250 additional workers are required in the last half of 1943, which necessitates hiring 147,490 new workers to allow for turnover and losses to the armed forces.

Bunker said the production program was so successful that WPB executives had to wrestle with an over-supply problem 60 days ago, when aluminum scrap was at least 10,000,000 pounds in excess of requirements.

Since then Russia has agreed to take one-third of its fourth-quarter aluminum requirements in secondary metal, and secondary metal is being used in place of some former metal substitutes.

# HURRICANE CREEK ALUMINA PLANT IN SALINE COUNTY SOON TO PROCESS LOW GRADE BAUXITE TO PROVIDE MORE ALUMINUM FOR WAR EFFORT

Arkansas Gazette 1-17-43



—Army Signal Corps Photo.

An unusual view of a major unit of the new Hurricane Creek alumina plant in Saline county, where utilization of a new and economical process for handling low grade bauxite promises to give Arkansas a permanent aluminum industry, even in the post-war era when high grade ores can be imported cheaply from South America. Large calciners used for drying the ore are at the left and precipitators used in the process of claiming the alumina are at the right. Some idea of the size of one of the plant's principal buildings can be gained by comparing it with the workmen and tractor in the lower foreground.

By CLOVIS COPELAND.

(Staff Correspondent of the Gazette.)

Bauxite, Jan. 16.—Location of the gigantic Hurricane Creek processing plant near the center of the Arkansas bauxite producing area may assure the state of a prominent part in the aluminum industry long after the war is over.

The elimination of expensive freight rates, plus developments making possible so economical a system of processing low grade ore, has given the Hurricane Creek plant a new place of importance in the entire industry, even before all of its units have been completed.

From the top of the towering structure housing the giant precipitating tanks, can be seen the huge open pit bauxite mines, producing more than half the aluminum for the war effort in this nation. And from the top of this building a spectator can realize the magnitude of the processing operation.

Man-made mountains of high grade ore are being piled at the back door of the plant, and enough has been accumulated to operate the plant for several months at full capacity. The plant is in production, but several of its processing units still are in the blueprint stage.

### Spirit of Co-operation Evident Among Workers.

Everywhere in the Hurricane Creek system is evidence of production and construction side by side, each co-operating in an effort to speed both phases. Trucks bringing in ore for the stock piles give way steadily to other trucks with construction materials.

Construction workers build receiving pits for the crushers at the initial stage of the process, while other workers unload trucks to send the ore on its way to become fighting planes and other vital units in the United States big part in the war effort.

Accompanied by Thomas C. Jones, in charge of operations in Arkansas for the Aluminum Company of America and Lt. Walter E. Hussman, public relations officer at Camp Robinson, designated as safety officer for the plant, a Gazette reporter climbed steel stairs following the ore through its miles of processing.

### Initial Operation Separates Silica From Bauxite Ore.

In dump trucks, the ore is brought from the mines into the plant's stockpiles, from which it is loaded on other trucks and dumped into large crushers to begin the actual processing This crushing unit has the appearance of any rock crusher, except the conveyor towers, larger than average, seem small by comparison to the rest of the plant.

After the ore is ground into small units not more than two inches in diameter, the ore is sent through a washing process to remove as much of the clay as possible. As the bauxite comes from the mines it contains clay which has a high percentage of silica (silicon oxide) which is an undesirable impurity and must be separated from the bauxite, in the initial operation.

Bucket conveyors and belts carry the bauxite from this first crushing operation to large screens where the ore is sprayed with water. It is washed several times, then dried and ground into a powder.

### Workers Salvage Canvas Filters for Tent Habitations.

In a complicated procedure which involves a series of huge round tanks, connected with pipes and other conveyor systems, the ore is mixed with hot caustic soda solutions. These units are called digesters. In this process, the potential aluminum is dissolved, while other substances remain comparatively firm. This solution is filtered through heavy canvas which passes the sodium aluminate solution while the red mud residue is retained.

The filters require enough canvas each month to house a good-size circus, because each filter will last about eight hours on the average. If it becomes strained, or sustains a puncture the size of a pencil point, it loses its usefulness.

Many workers in the community have obtained the used filters, washed them and made tents. These tents dot the area around the plant. Some have several rooms.

After passing through the filters, the sodium aluminate solution is dumped into precipitating tanks as high as the average six-story building. The tanks are about 20 feet in diameter, and are open at the top and funnel-shaped at the bottom The solution enters from a pipe near the top and undergoes constant agitation by air pressure from a pipe in the center.

### Agitation Tanks Furnish Most Impressive Scene.

During the agitation period, each tank has the appearance of a huge boiling pot, with a gigantic fountain in the center belching a steamy, creamy solution. It is one of the most impressive sights in the entire process. These tanks stretch in both directions in orderly rows.

The tanks on only one side of the building are in operation. The other side of the building is under construction, with steeplejacks hammering the tanks together from the floor up. Plant workmen keep a close check on the tanks in operation, cleaning the empty ones, adjusting operations of the others, and draining those in which the process has been completed.

As the solution slowly cools in these tanks, fine crystals of alumina begin to settle. As the process is completed, the caustic soda solution is pumped back into the digesters to take on new ore. The alumina is transferred into large gas heated rotating kilns to drive off the chemically combined water and change the character of the material so that it will not re-absorb the moisture from the air.

These block-long kilns look like giant tiles, slanting gradually toward the oven-end. The gas heat is blown into the kilns by great fans. From the end of these kilns the alumina is cooled and conveyed to moisture-proof cars for delivery to the Jones Mills Works or to similar plants in more distant parts of the country.

### Plant Apparently Constructed As Permanent Processing Unit.

Everything about the plant furthers the impression that it was built as a permanent unit. It is entirely of steel and concrete The future of the plant after the war depends upon the amount and quality of ore availble in the vicinity and whether the plant can produce alumina more economically than other plants, using higher grade imported ore. With use of even lower grade ore, the Hurricane Creek plant may give the foreign-produced ore real competition. There is a possibility that foreign ore may be shipped to the plant for processing.

New ore bodies discovered in the region and facilities already in operation or in the process of construction to use lower grade ore and the permanency of the plant assured observers that the Hurricane Creek plant will be in operation for years to come.

# Sees Hope For Plant At Catherine

12-2-43

Arkansas's aluminum plant at Lake Catherine may be one of the very few war industries that will survive the war, Engineer-Director L. A. Henry of the state Planning Board, said yesterday. He based the prediction on a report recently released by the Senate's Special Committee on Postwar Economic Policy and Planning."

A report to the committee by Senator Joseph C. O'Mahoney of Wyoming, chairman of a subcommittee on industrial reorganization, said the cost of operation of several other of the "10 or 12 new aluminum plants" in the United States may be too high for them to produce the smaller amount of aluminum which will be needed after the war.

All the plants make monthly operation reports to the Defense Plant Corporation, including the cost of production, Senator O'Mahoney's report said. "These figures disclose the probable extent of survival after the war and, the chances of competition in the aluminum industry," said the report.

**Plants' Chances Analyzed.**

"The largest aluminum plant in the world is in Greater New York. It was built there as a war emergency because of the available electric power from the Consolidated Edison Company, but at a prohibitive price per kilowatt for peacetime.

"Other huge plants are in Eastern areas where power cost also is prohibitive from the point of view of survival after the war. Other big aluminum plants are in the Pacific Northwest where power costs are quite low. However, transportation of raw materials and finished products to and from these plants is expensive."

The report said a "probable decline immediately after the war" in aluminum production "creates postwar problems of the first magniture." It said the DPC has a staff "analyzing and organizing the great volume of material in the direction, first, of readjustments in the production program that may be required during the war, and second, those which will obviously be required after the war."

**Silence May Be Significant.**

Mr. Henry considered it was significant that the report did not mention the Arkansas plant as one of those with high production costs. The only others not so mentioned are in the Tennessee valley.

The combination of potentially low electric power costs and nearness to raw materials (since Arkansas produces more than 95 per cent of the nation's domestic bauxite) may mean the Lake Catherine plant will be operated after the war, Mr. Henry said.

An electric generating plant at the aluminum plant, now about 85 per cent complete, probably will be able to produce power at less than three mills per kilowatt hour, he predicted. The plant cannot be operated until the War Production Board grants priorities for turbines.

With installation of the latest type of steam boilers, which have a 34 per cent efficiency compared with a 20 per cent average for older type plants, the Lake Catherine plant may be able to obtain electricity at rates lower than those in the Tennessee valley, he said.

It can be fueled by purified sour gas from South Arkansas fields. The gas is obtainable for five cents per 1,000 cubic feet and is considerably cheaper than coal, he said.

Hydro power from White and Ouachita river dams will add to the available supply. Norfork dam on the White river, scheduled to begin generating next February, will at first have a 70,000 kilowatt power unit but will be capable of having another unit of the same potential, he said.

# Civilians to Get More Aluminum

12-31-43

Arkansas' greatest contribution to the war effort has placed the aluminum industry in a position to start supplying some civilian needs, Pres. Roy A. Hunt of the Aluminum Company of America, indicated in a statement made in Pittsburgh today.

This, according to those interested in bauxite mining locally, may mean much to Arkansas in 1944, as 96 per cent of the bauxite of the United States is being taken from the ground in the Arkansas bauxite belt at present, and a huge reserve of hundreds of tons is awaiting a demand in stockpiles of the area.

Up to the present time, however, the release of requested allotments to manufacturers, which is just getting under way, has not influenced mining in this locality, it was pointed out, although independent operators are taking a more optimistic attitude toward the future.

## Study Aluminum

The critical part that aluminum is playing in the present world conflict and the importance of that industry to the state of Arkansas resulted in the project, "The Study of Aluminum" being carried on in three 7A geography classes directed by Mrs. Ruby Weatherly in West Side Junior High School.

Materials for study were gathered from reference books and periodicals, especially the current newspapers. Each student felt it his responsibility to find interesting and valuable information to present to the class for discussion. Many students made trips to the State Museum, the State Capitol Building, the office of the state geologist and aluminum plants gathering information and specimens of bauxite to give to the class.

At the completion of the project Richard J. Anderson, state geologist, spoke to the classes, bringing them first hand information as to the processes used in the plants in the state.

Sponsors for the Student Council have been elected as follows: 9A, Mrs. Mary Harrison; 9B, Miss Flora Hammett; 8A, Miss Olive Chandler; 8B, Mrs. Ella Humble; 7A, Mrs. Ruey Weatherly; 7B, Miss Myrtle Williams.

Officers of the council are: Jo Ann Morris, president; Charles Hill, vice president; Marcella Munson, secretary.

# Alcoa Party Arrives At Hot Springs

Arkansas Gazette
11-10-44

Special to the Gazette.

Hot Springs, Nov. 9.—More than 40 representatives, including superintendents and electrical engineers of all reduction plants of the Aluminum Company of America, and of leading electrical manufacturing companies of the country, arrived in Hot Springs tonight following inspection of the alumina plant on Hurricane creek, near Benton, and the properties of the Republic Mining Company, Bauxite.

Don I. Bohn, Pittsburgh, Pa., chief electrical engineer of the Aluminum Company of America, said the impression the visitors received "was that of the great magnitude those industries represented."

"This was the first time that a majority of our party had ever visited those plants," he said. "The inspection of both was a revelation. Many of them had not seen the mining operations, and they marveled at it. The day will long be remembered, and most pleasantly, too."

**Kiwanis Club Guests.**

Mr. Bohn and Victor C. Doerschuk, Pittsburgh, general superintendent of all reduction plants, will address members of the Kiwanis Club tomorrow night.

Members of the party will be the guests of Harry S. Slagle, superintendent of the Jones Mills Works aluminum plant, Lake Catherine, tomorrow. The inspection will take the greater part of the day.

Friday and Saturday will be given over to executive sessions, at which problems having to do with the production of aluminum will be discussed.

## No End of Aluminum in The Earth—If You Can Get It.

To describe clay as "aluminum-bearing" is like describing water as wet. The statement that large bodies of clay discovered in Oregon, Washington and Idaho contain better than 30 per cent aluminum and fall into the "potential commercial class" of such deposits was the significant part of an announcement made by the United States Geological Survey.

Until recently aluminum has been produced in relatively limited quantities by comparison with metals like iron or copper, but in reality it is the most abundant of all metals, and, second only to oxygen and silicon, the most abundant of all chemical elements. It is believed to constitute a thirteenth part of the earth's crust.

Abundant as it is, however, aluminum is never found in a metallic state. The bulk of it is diffused all through the earth's clay banks and clay beds, whose principal constituents are aluminum oxides or silicates. The remainder is concentrated in hard ores, chiefly bauxite.

Heretofore industry has relied on bauxite, which has an aluminum content running from 50 to 65 per cent in the Arkansas rock to as high as 75 per cent in some French bauxite, as the source of commercial aluminum metal. But every deposit of clay might truthfully be called a deposit of low-grade aluminum ore, and clay containing better than 30 per cent is now believed to be workable. In fact, a pilot plant for processing the Oregon, Washington and Idaho 30-per cent clays is already in operation, and a $4,000,000 commercial plant has been approved by the War Production Board.

The reason for this intensive interest in aluminum from clay is that the known domestic supplies of bauxite, chiefly in Arkansas, are limited. The Geological Survey is looking toward a time when the country may have to depend on clay as a domestic source. But that time is not yet in sight. For present needs, Arkansas has plenty of bauxite left, and other deposits have been found in Mississippi, Georgia, North and South Carolina and Alabama.

# Aluminum Cut Not to Affect State's Plants

Democrat, Jan. 1, 1944

## Maximum Capacity Maintained Despite Order From Ickes.

Although the War Production Board Friday night ordered a reduction in production lines in several federally - owned aluminum plants in the East in the apparent sweeping cutback in aluminum output, the Jones Mills and Hurricane Creek plants in the Arkansas bauxite area are continuing operation at a maximum capacity, Harry Slagle, works manager, said yesterday.

Arthur H. Bunker, WPB vice chairman for metals and minerals, indicated the board may order the shutdown of as many as 15 lines within the next few days.

Alcoa had previously voluntarily taken one line out of production at its Alcoa (Tenn.) plant, and a company spokesman said more lines would be closed there. The WPB order curtailed production in the federally-owned Burlington (N. J.) and Massena (N. Y.) plants. Representative Horan (R., Wash.) said Mr. Bunker informed him the Massena plant would be closed January 30. Both are operated by Alcoa.

**Certain Factors Lacking.**

Mr. Slagle said fuel and transportation will probably be made deciding factors where reductions in production are made. Coal is used in generating the steam for power in the plants at which lines have been closed, and will be a factor in future decisions.

With the Arkansas alumina and aluminum plants within the mining belt where 96 per cent of native ore is produced, and piped-in gas-burning Deisel engines are used for power, there is neither the problem of draining the nation's coal supply or the use of rail transportation facilities involved here, Mr. Slagle stated.

However, he cited the fact that any reductions, anywhere, are unpredictable from his source as decisions are entirely up to WPB, and not within the power of dictation by Alcoa in the plants which it operates for the government. Alcoa has already curtailed production of alumina 50 per cent in its Baton Rouge plant and 10 per cent in its East St Louis plant, where ore is processed to purity necessary for the electrolytic process which reduces it to ingots. These plants are completing the same process as the Hurricane Creek alumina plant near Bauxite.

The WPB action Friday night directed the closure of two out o three lines in the Burlington plan and two out of eight lines in th Queens plant in Maspeth. Furthe cutbacks were predicted by Mr Bunker, and he also indicated th coal shortage would be taken int consideration in future decisions.

**Ickes Pessimistic.**

However, Secretary of Interio Ickes has stated that he is "not impressed by statements that we have too large a surplus of aluminum." And the fact that WPB asked in November for requests for allotments of aluminum for use in producing metal products is also a factor favoring continued maximum operation of the alumina and aluminum plants in the Arkansas bauxite field.

"Everything favors the Arkansas plants," said Mr. Slagle. "We are keeping up to capacity production and the only curtailment here has been in mining which was ordered because the bauxite stockpiles within the state's mining area have grown to proportions which will permit continued capacity operation for months without the coal shortage or transportation problems entering the picture."

# Tells Of Aluminum's Expansion

Gazette
1-2-44

**By ROY A. HUNT.**

President, Aluminum Company of America.

For the aluminum industry, 1943 has been a year of encouraging contrast to the somewhat apprehensive early years of World war II.

In February 1941, aluminum was the first essential material to be placed under priorities. In November, 1943, it became the first priority material to achieve production so vastly increased that the government was able to invite manufacturers to request allotments for economic and constructive civilian uses.

In 1940 and 1941, there existed in certain quarters highly vocalized fears of shortage. Those fears have now been answered by ingots and sheets, and other forms of aluminum, in definite and growing surpluses over military needs. The aircraft industry, consuming 90 per cent of the aluminum that goes for war needs and now producing at a rate of more than 100,000 units a year has never been short of the metal.

The aluminum industry, in 1943, reached an actual production rate of more than 2,100,000,000 pounds of metal annually. This is seven times the nation's peak peacetime production. It is one and one-half times the annual production of the whole world before this war, when Germany, building the Luftwaffe, for a short time exceeded the production of the United States, where only a few thousand planes were then on order to be delivered over a period of several years. America's capacity to produce aluminum, as we enter 1944, is certainly far in excess of what all the Axis countries together can produce.

**In Terms of Future Jobs.**

What this vast aluminum expansion will mean in times of future jobs will become clearer as the metal is released for civilian consumption. This is especially true as industry begins to use it for new applications growing out of wartime experiences or encouraged by the present favorable price position of aluminum. Alcoa's price for aluminum ingot at the time priorities were imposed, was 20 cents a pound; several price reductions since that time have brought it to the present record low of 15 cents, during a time when the prices of many competing materials were rising.

How well employment levels in the aluminum industry may be maintained depends upon a number of things, among them: Whether restrictions are more completely removed on aluminum for civilian uses; whether there is to be an accumulation of large metal surpluses, which could conceivably come back to demoralize the industry at a later date; and the degree of success aluminum achieves in finding new and increased postwar uses.

The metal may create more jobs in other industries than in the aluminum industry itself, for many thousands of persons in these other industries have, during the war, learned to work aluminum for the first time, and many new businesses have become acquainted with the metal's advantages.

**Other Contrasts.**

Further significant contrasts noteworthy in the industry today as compared to peacetime days before September 1, 1939 are: Aluminum Company of America was then the only producer of virgin aluminum the United States; now plants owned by the United States government are producing more than half the aluminum made in this country, despite expansion of Alcoa's own capacity by an expenditure of $300,000,000 of the company's own funds. Two other companies are now making aluminum, while hundreds more, including some of the nation's largest industries, fabricate it.

Before the war the nation was dependent upon only high-grade domestic and imported bauxite for alumina. Today, using a process developed by Alcoa after 25 years of research, the industry is making alumina from low-grade bauxite and also from the red mud residue from the familiar Bayer process.

## Aluminum Exhibit Given To Hot Springs Museum.

Ark. Gaz. 1-20-45

Hot Springs, Jan. 19 (Spl).—The Aluminum Company of America, through Harry Slagle, superintendent of the Jones Mills Plant at Lake Catherine, has donated to Hot Springs National park museum material from the Bauxite mines and from the Jones Mill and Hurricane Creek plants.

The exhibit includes bauxite ore, alumina oxide and aluminum ingot.

# STATE SALE OF 40-ACRE TRACT TO BE PROBED

Arkansas Gazette
1-17-43

## Appraisal Under Scrutiny.

Two state officials will go to Washington county tomorrow to investigate appraisal and sale at $1.50 an acre of state-owned land that was assessed at $50 an acre when certified to the Land Office two weeks earlier for non-payment of taxes.

A 40-acre tract in the fruit-producing section near Springdale was assessed at $2,000 when it was forfeited to the state for non-payment of 1939 taxes. After an accumulation of three years' taxes, the land was included in the list of delinquent property certified to the state November 11, 1942.

Although appraisers employed by the state Land Use Committee do not usually inspect and place an appraisal so quickly after land is certified to the state. Appraiser M. I. Shuster visited the 40-acre tract November 27 and filed a report valuing the land at $1.50 an acre.

The land was bought immediately by Lofton and Hal Brogdon, Springdale farmers and orchardists, in whose name it forfeited to the state, at the appraised price of $1.50 an acre. Thus for $60, plus a $1 fee for a deed, the owners were enabled to regain the property, which would have cost them $219.31 had it been redeemed by paying back taxes as required by law.

Mr. Shuster's report said the tract contained no buildings and no land was in cultivation. He described it as cut-over property, adding that it was adaptable to pasturage and production of tomatoes and beans.

Hal Brogdon told the Gazette that the land had contained an apple orchard that "died of old age." He said new apple trees now occupy several acres and that cherry trees are "scattered about the place." A red tenant house stands on the tract, he said.

"But there were no sales from the place last year," he added.

## Two State Officials To Make Investigation.

Advised of the transaction Land Commissioner Bush Binley announced he would go to Washington county tomorrow to inspect the property. Comptroller J. Bryan Sims assigned Auditor Homer Jackson, former Washington county official, to accompany Mr. Binley.

"If the property should have been appraised at more than $1.50 an acre, the Land Office has the authority to cancel the sale," Mr. Binley said. "We have received no complaints concerning our appraisals, but we are glad to investigate any transactions of this nature."

The same 40-acre tract was allowed to forfeit for non-payment of taxes in 1935. It was certified to the state in 1938. Soon thereafter Manie Schuman, Little Rock real estate speculator, spotted it on the Land Office books and bought it at $1 an acre. It was not until 1939 that appraisals were required. Before that time, the legal price of all of state-owned land was a flat $1 an acre.

Mr. Brogdon said he was forced to pay Mr. Schuman several hundred dollars for the latter's state deed, which was necessary to remove any cloud from Brogdon's title.

Mr. Brogdon said he didn't care to explain why the county assessment on his property was $50 an acre, but said it was too high. Formerly, persons who desired to purchase state-owned lands for a fraction of their accumulated taxes merely took advantage of a statute which permitted county assessors to reduce assessments for previous years arbitrarily.

This measure, Act No. 282 of 1939, was abused so widely that the Land Use Committee and Mr. Binley, as secretary, co-operated in an injunction suit to halt the practice.

Mr. Binley suggested that the 1939 Land Policy Act be amended to prohibit the sale of tax-forfeited land for less than the amount of accumulated taxes when an appraisal discloses the property to be very desirable.

Mr. Shuster, a former Madison county judge and state senator, was appointed a member of the state Corporation Commission by Carl E. Bailey when the latter assumed the governor's office in 1937. A few months later, he was removed from office when the then governor announced that Mr. Shuster's services had proved unsatisfactory. The ex-commissioner campaigned vigorously against Mr. Bailey in the gubernatorial campaigns of 1938 and 1940.

## Considerable State Land In Bauxite Area Sold.

State officials admitted yesterday they did not know whether recent purchasers of tax-forfeit lands in Pulaski and Saline counties were producing bauxite without remitting severance taxes to the state treasury.

Speculation arose when a Little Rock real estate broker purchased about 10 acres found on the state's books as town lots and described as situated in Diana's Addition to Little Rock. Although far outside the city limits, between Sweet Home and Mabelvale, the property still is classified as town lots.

The property is near the bauxite-producing area. It was bought for $14.35.

Land Office officials said about 7,000 acres of state-owned lands had been sold in the Pulaski-Saline area since passage of a statute requiring the state to retain mineral rights in all deeds to rural property.

They said bauxite or other minerals probably could be removed from the lands without reporting the action to the state. But any person who severed minerals under such conditions would be violating the law, they explained.

The state is empowered to lease its mineral rights on the basis of 10 cents an acre and one-eighth royalty after production begins.

# BAUXITE MINING AT SWEET HOME MAY ELIMINATE VILLAGE

Arkansas Gazette 10-11-42

Bauxite miners, drillers and truck haulers are giving out discordant notes to the old refrain of Home Sweet Home, as they go about the work of producing the huge quantities of ore needed to make aluminum for the war effort.

Residents of Sweet Home, the few remaining, definitely believe it isn't as sweet as it once was. The little village, about six miles from Little Rock, was listed a few years ago as having an official population of 2,579 persons.

**Production Increases.**

But today a small group of contractors, who have named their company the Sweet Home Bauxite Company, are making rapid progress increasing production of bauxite. This group so far has had little difficulty persuading residents to move from property where bauxite is located. Four houses have been torn down, one has been moved out of the producing area and another, occupied by an aged Negro woman who has refused to move, is being circled with excavations

The old Negro, who declared she didn't remember how old she is, "guessed" she "was around 80." She lives on the western edge of the producing area. She told miners she did not care where they dug she just didn't want to leave her old home. Throughout the day she sits on her back porch, smoking a corn cob pipe, watching activities. Miners said she became angry one day when a blast went off too close to her home, sending dirt and rocks into her bread dough.

"She sort of got disgusted with us," one of the miners said, "but we bought her some more flour and the next day she was out watching us again."

**Tunnels Near Highway.**

The Sweet Home Bauxite Company started operations on the western outskirts of the town several months ago. Tunnels are within four blocks of U. S. Highway 65. The company obtains leases on property where ore is located and then works out an agreement with the owner as to the disposition of the houses. Officials of the company said probably that all houses located on ore deposits east and west of the highway will be moved or torn down. Business establishments probably will be left standing, they said.

Company officials said bauxite ore was being produced at a rapid rate at the mines. The only difficulty encountered, one official said, is transporting the ore from the mines to a stockpile at Ward's spur, six miles from Little Rock on the Arch street pike. Transportation of the ore from Sweet Home to the stockpile is principally on the Dixon road, known as the Sweet Home cut-off.

**Road Needs Repairs.**

Trucks, loaded with approximately five tons of ore each trip, have made huge holes and ruts in the road, causing much time to be lost in making the trip to the stockpile. In some stretches on the cutoff there are holes as deep as five or six inches. Efforts to secure repairs have been unsuccessful.

Company officials have been making efforts to obtain a new stockpile near College Station, Pulaski county, about three miles from the mines at Sweet Home. It was pointed out that the great majority of the county's bauxite deposits are on the Sweet Home side of Granite Mountain. It has been estimated that more than 325,000 tons of bauxite, of which 159,000 tons is of unusually high grade, can be mined on the Arkansas Confederate Home property.

An official of the bauxite company said government agents had discussed the prospects of a stockpile near College Station but said they believed no action would be taken before the middle of December.

is to retain title to the property and to contract with a dependable mining firm to mine the deposits and deliver them to the government stock pile on a fee basis," the Hot Spring county legislator said.

Figuring that there are approximately 325,000 tons of merchantable bauxite on the 40-acre Confederate Home tract which would sell for an average of $4.50 a ton, Parker said the state should net $1,000,000 after paying all mining charges.

The proposed bill would leave to the board the matter of arranging new living quarters for Confederate Home residents. It will provide that part of the funds from sale of the bauxite could be used to erect new buildings. He suggested that cottages might be built on the old Arkansas Deaf School property in Little Rock.

**Revenue Could Be Applied on Bonds.**

Parker said moneys derived from sale of the bauxite could be applied toward retirement of the remaining $6,119,000 worth of Confederate pension bonds issued from 1927-30 and scheduled to mature in 1951. A two-mill property tax is levied for debt service on the bonds, pension payments and upkeep of the Confederate Home.

Governor Adkins made public Saturday a letter from Director A. H. Bunker of the WPB's Aluminum-Magnesium Division which said the amount of high-grade low-silica bauxite which was essential for certain uses had declined alarmingly and that under these circumstances the high-grade ores on the Confederate Home tract "should be made available for the war program."

The legislature, which has moved slowly the first two weeks of its session, is expected to gather speed this week with introduction of first budget bills and committee consideration of liquor, labor and racing bills.

A member of the Joint Budget Committee, who declined to permit use of his name, said proposals for further consolidations of state departments probably would be discussed this week. He said consolidation of the insurance and banking departments had been discussed. The committee recommended last week that the Publicity Department, Agricultural and Industrial Commission and Planning Board be merged in one department.

Most of the legislators returned home over the week-end. The House will reconvene at 1 p. m. and the Senate at 2 p. m. today.

**Milum Willing To Meet With Adkins.**

Roy Milum of Harrison, leader of an anti-administration group in the Senate, said yesterday he would be glad to confer with Governor Adkins on the latter's invitation, concerning two bills which he introduced in the Senate Friday, to aid the State hospital. One would provide a $450,000 building program for the Benton unit and the other would appropriate $110,000 to supplement the food budget for the remainder of the biennium. Governor Adkins said Saturday he would be glad to have Mr. Milum sponsor legislation to aid State hospital. The governor said he welcomed all help possible on the hospital problem and "I'm not going to carry personalities into this matter."

showed 350 persons were killed on the highway during the year, compared to 505 in the previous 12 months, when the speed limit was 60 miles an hour.

The maximum legal speed was reduced to 50 miles an hour October 8, 1941, as a safety measure. The reduction was made on an experimental basis, but, after three months, it was made permanent.

Governor Adkins ordered the limit cut to 40 as a tire conservation measure last June 5. Co-operating with President Roosevelt's suggestion, the Highway Commission fixed a war speed limit of 35 miles an hour September 17.

The National Safety Council announced yesterday that the Arkansas traffic fatality rate during the first eight months of 1942 was 32 per cent less than in the corresponding period last year. The council reported the Arkansas decrease was the twelfth greatest in the nation.

## Additional Bauxite Found in County.

Ark. Gazette 1-31-43

Approximately 6,250,000 tons of bauxitic material have been discovered in Pulaski county recently, J. R. Thoenen, district engineer for the United States Bureau of Mines, said yesterday. About 60 per cent of this is commercial grade ore, Mr. Thoenen said.

In addition to the six drills now being used, the bureau is arranging for two more to be operated on the project, and three more will be used in Saline county as soon as they can be built. Priorities are now being arranged to build the drills, but Mr. Thoenen said he did not expect delivery for two or three more months.

Mr. Thoenen went to Louisiana to inspect reported manganese deposits last week, but failed to find anything of commercial value.

## Three Years' Supply of Bauxite.

Democrat Sept. 10, 1943

Known supplies of bauxite in the United States would last only about three years if all imports were stopped, according to the Federal Bureau of Mines.

This means Arkansas bauxite for the most part, since comparatively little has been found elsewhere in the country. Presumably, too, the estimate is based on the present high rate of war consumption for turning out aluminum, and it refers, of course, to the better grades of bauxite required for processes now in use.

Improved processes might make a huge total of low-grade Arkansas bauxite available for aluminum production. Yet this is only a hope and no very bright one, all things considered.

For years there have been reports of new methods for processing low-grade bauxite, even for extracting aluminum from clay. But evidently the methods haven't proved economical in competition with bauxite of good quality, for nothing came of them. And though better processes may yet be developed, that is still a maybe, against which is the certainty of large imports of high-grade South American bauxite after the war.

Not very promising either is the possibility of substantially more high-grade bauxite being discovered in the state. Discoveries could also be made in other states.

The situation reminds us that many Arkansas minerals which we have regarded as materials for industry, are limited in amount. This is true of our manganese, zinc, titanium, antimony and some others, so far as is known now.

Even our petroleum reserves, though still large, are not inexhaustible. Only a few of our broadly useful minerals seem abundant enough to sustain long-lasting pay rolls.

In contrast with that fact, we do have endless resources for industry, if they are properly cared for, in our timber and farm production. Moreover these have the widest and surest industrial outlets.

Mineral industries can help the state much, and we should go after any in sight. But the main routes to greater and enduring prosperity for Arkansas lead from our farms and forests. They alone replenish their yields—for markets which ingenuity is constantly expanding.

## CAPITOL

# Estimates Placed On State Bauxite

Ark. Gaz. 12-11-43

Complete data concerning the estimated amount of bauxite underlying the Confederate Home is ready for mailing to the Metals Reserve Company at Washington today, Joe Hardin of Grady, chairman of the state Bauxite Commission, said here yesterday.

At the request of the federal agency, which has tentatively offered the buy the bauxite, the state has prepared estimates of only the highest grades of bauxite at the 20-acre Sweet Home site, Mr. Hardin said.

State Geologist Joe W. Kimzey has estimated 361,000 tons of ore with an average alumina content of 52.46 per cent, silica content of 10.17 per cent and ferrous iron content of 4.59 per cent are available, Mr. Hardin said.

Metals Reserve will pay premium prices of $5.06 per ton for this ore compared to $4.01 for the 400,000 to 470,000 tons with a higher silica and iron content, he said.

The state would receive more than $1,800,000 from Metals Reserve if all the ore were mined on either basis.

**Adkins Urges Approval.**

Governor Adkins prepared a letter to the War Production Board, which must approve any contract Metals Reserve proposes to make, urging favorable action.

Mr. Hardin said WPB officials had tentatively agreed that if and when a contract is signed it will furnish priorities for relocating the Confederate Home. The Bauxite Commission and Confederate Home Board recently voted to build a $100,000 home on property of the old Arkansas School for the Blind on South Center street.

Letters of intent given the commission by Metals Reserve several months ago specified an advance of $200,000 for beginning the mining operations and relocating the home.

the WPB would have requested mining of the tract and pushed plans to have the ore utilized, if it were not needed badly for the war effort," he said.

The Confederate Home tract continues one of the few known high grade ore deposits remaining in the United States.

A contract with the Metals Reserve Company must be approved by the state Bauxite Commission, established by the 1943 legislature to supervise mining of the tract, and by the Confederate Home Board before work begins. Governor Adkins said he had not been notified by the WPB of any change in plans regarding the Confederate Home ore.

## Expects to Mine Land At Confederate Home.

Oct. 29, 1943

The War Production Board's new order reducing bauxite mining operations because of the manpower shortage probably will not affect plans to mine ore under the Confederate Home at Sweet Home, Governor Adkins said yesterday.

He said the state has gone to considerable expense to make tests on the property and expressed belief that at least 300,000 tons of bauxite at the home should be high grade ore. He said the federal government still needs such ore badly for abrasive. "I don't believe

# BILL TO MINE STATE BAUXITE BEING DRAFTED

Arkansas Gazette 1-25-43

## Deposit Said Worth $1,000,000.

A bill to enable the state to cash in on an estimated $1,000,000 worth of high-grade bauxite deposits underlying the Confederate Home southeast of Little Rock was being prepared by three legislators yesterday for introduction this week.

Collaborating on the measure were Representatives Parker of Hot Spring (county) and Wright of Clark, Senator Reaves of Hermitage and several state officials.

Parker said the move to sell the deposits and to move the home to a new location had been given impetus by a War Production Board request to put the reserves into production.

Previous moves to mine the property have been vigorously opposed by the United Daughters of the Confederacy and the Sons of Confederate Veterans. There now are five veterans at the home and a total of 84 residents, including veterans, wives, widows and daughters.

**Commission Would Supervise Program.**

Parker said the tentative draft of the bill provided for creation of a Board of Commissioners to supervise disposition of the deposits. The board would be composed of representatives of the U. D. C., Sons of Confederate Veterans, a mining engineer, the state geologist and other state officials.

"We have about decided that the best way to handle the proposition

## CAPITOL

# Confederate Board Agrees To Mining

Ark. Gazette 2-14-43

Members of the Confederate Home Board of Trustees have agreed to a War Production Board request that bauxite deposits beneath the surface of the institution's property near Sweet Home be developed to aid the war effort, Governor Adkins said yesterday.

"The board felt it should take advantage of the opportunity to dispose of the ore," he said. "But we will be certain that the large deposits supposed to be under the home are really there, before we act."

The executive said the state's fiscal authorities have been asked to work out a plan under which $15,000 would be made available for new drilling tests and $100,000 for a building in which to house the dwindling number of veterans, their wives and daughters. He said an interested federal agency might be willing to provide funds to meet the cost of drilling.

Tests have indicated that about 300,000 tons of high grade bauxite are deposited in the area.

# Governor To Name Bauxite Commission

Ark. Gaz. 5-4-43

Governor Adkins announced yesterday he would appoint a state Bauxite Commission this week to negotiate for mining bauxite deposits underlying the Confederate home at Sweet Home as provided by a 1943 act.

The Geology Department has estimated the 52-acre tract contains 350,000 tons of ore valued at about $1,000,000.

The commission would supervise a survey of the Confederate home property to determine how the state will have it mined. The bill provides patients at the home must be provided facilities equal to those at Sweet Home if the buildings are dismantled to permit mining activities.

# 'E' AWARD THURSDAY PLEASES LEADERS IN BAUXITE PRODUCTION

Arkansas Democrat 1-10-43

—Gazette Staff Photo.

L. R. Branting, left, superintendent of the Republic Mining and Manufacturing Company operations at Bauxite, and J. W. Lewellen, assistant, have served an aggregate of 55 years in the Bauxite fields and plant.

The presentation of the Army and Navy "E" to the Republic Mining and Manufacturing Company at Bauxite Thursday, probably will mean more to L. R. Branting, superintendent of the operations at Bauxite, and the assistant superintendent, J. W. Lewellen, than any other two persons connected with the industry.

They have served the company a total of 55 years between them. They came to Bauxite because it was a place neither had been before, and remained because "it was a good place to work."

Because of tremendous production required in the war effort, the executives expanded operations of their ore treatment plant to its capacity, then took charge of exploration and ore finding activities for their parent company, the Aluminum Company of America, in the Bauxite area. They have directed activities which now are producing 10 times as much ore from the area as was mined during their busiest pre-war year.

**Took Job As Newly-Wed.**

Mr. Branting, a native of Nebraska, was a newly-wed and fresh out of the army, with a job as district maintenance superintendent for the Burlington railroad, when he received a telegram offering him a job as civil engineer at the Bauxite mines. He had been over most of the United States, a large section of Europe, and had assisted in the construction of the main thoroughfare through Buenos Aires, Argentina, and fought through four major campaigns in France during the World war, before his marriage.

The railroad job kept him away from home most of the time. He wanted a change, and accepted the Arkansas offer in preference to a college professor's job in Oregon, or a mining post in South America. He took the job January 15, 1920, as chief engineer at Bauxite. He became superintendent of operations in 1924.

**Left Lumber Trade**

Mr. Lewellen, a native of Panola county, Miss., was working for the Bluff City Lumber Company at Pine Bluff, when a friend left the company and took a job at Bauxite. He wrote Mr. Lewellen that Bauxite offered better opportunities than the lumber business, so the latter inquired about the way to Bauxite, and arrived there, 28 miles away, July 6, 1910.

He has been there since. He went to work under the late Col. J. R. Gibbons who had done the first mining in the Bauxite fields in 1889. He became the chief clerk, in the same office he now occupies as superintendent.

Mr. Lewellen can remember well when the company received its first order for 10,000 tons of ore to be delivered during July, 1910. He remembers that Colonel Gibbons exhibited the order with pride to his associates.

The Bauxite industry was small in those days. The major industry in the county was the big sawmill at Bryant, then one of the largest sawmill towns in the state.

**Recalls Old Methods.**

The assistant superintendent has notes from the company's records in the early days, when all the ore was mined with mules and "scoops," and piled into wagons by hand. The first modernization of the mining methods was to pile the ore in long lines and build log fires on either side to dry it.

It was transported to the railroad at Bryant over rutted roads with wagons and mules, for shipment to Memphis, Tenn., where it was transferred to barges for Pittsburgh, Pa., for reduction and processing.

The company had completed its railroad system to Bryant when Mr. Lewellen started to work, but loading of cars was by hand. He has watched the ore drying system advance from the time when ore was heated in furnaces fed by pine knots, until installation of the huge rotating furnaces heated by natural gas.

Mr. Branting and Mr. Lewellen will get a large amount of personal pleasure in seeing their plant awarded the "E" for efficiency in production vital to the war effort.

## Bauxite Commission to Plan Development of Deposits.

Ark. Gaz. 5-25-43

Governor Adkins announced yesterday that the new Arkansas Bauxite Commission will meet with the Confederate Home Board at his office at 8 p. m. Tuesday to prepare for the development of bauxite deposits underlying the institution's property near Sweet Home.

"I presume the joint boards will discuss plans to make preliminary tests for the ore," he said. "They will have complete charge of the work."

# ALCOA'S JONES MILLS WORKS ON LAKE CATHERINE NOW PRODUCING METAL FROM ARKANSAS BAUXITE

Arkansas Gazette 1-24-43

—Gazette Staff Photo.

Production of aluminum ingots from alum ina from Arkansas bauxite is well underway at the Jones Mills Works of the Aluminum Comp any of America on Lake Catherine. Stacks of ingots from the huge potlines are shown abov e awaiting shipment to rolling and fabricating plants of war industries.

Special to the Gazette.

Malvern, Jan. 23.—Of all Arkansas war plants, the Jones Mills Works on the banks of Lake Catherine may be the most valuable in post-war recovery operations.

One of the largest plants of its kind, its versatile facilities could be used for numerous operations, should officials decide to cease the manufacture of aluminum "pigs" at that location.

The plant has one of the largest power-manufacturing plants in the state. This unit will be fed by sour gas as soon as the gas-cleaning plant in the Lewisville-McKamie area is completed. The sour gas should enable the plant to manufacture electric power as economically as any in this section.

This fact will increase its value as an aluminum-producing unit, since the cost of power is the major consideration. Officials have expressed the opinion that should sour gas or other items lessen cost of power, this plant will be an important cog in the producing of commercial aluminum when its manufacture is returned to a competitive basis.

### Projected to Be Largest Manufacturing Unit in State.

The Jones Mills Works is by far the largest single manufacturing unit in Arkansas. As now planned it will be in full production before spring. The large-scale production of the future can be imagined by the large stacks of aluminum pigs, pleaced neatly between the pot rooms, awaiting shipment.

To change the powdered alumina into the metal, the magic of electricity must be applied. Millions of kilowatt hours are consumed annually for this purpose. Soon the Jones Mills Works will rank with the other great aluminium-producing plants at Niagara Falls, N. Y., Massena, N. Y., Badin, N. C., Alcoa, Tenn., Vancouver, Wash., and other industrial centers where waterpower is used for the generation of electric power.

The Jones Mills Works consists of a large carbon plant for the manufacture of the carbon linings and carbon anodes necessary in the process; the huge electrical plant and the tremendous line of pot-rooms connected by hallways on one side and the center and a railroad on the other side.

Each pot-room contains long lines of electric furnaces, known in the industry as electrolytic cells, in which the aluminum is produced by the Hall-Heroult electrolytic process. These furnaces are rectangular in shape and consist of steel shells lined with carbon blocks. The carbon linings of the cells serve as the cathode and the current is led into each cell through carbon anodes suspended from above the cells.

### Cell Produces 250 Pounds Of Aluminum Each Day.

Each cell is capable of turning out about 250 pounds of aluminum daily. The cells resemble large old-fashioned sorghum mills, common in Arkansas a few years ago. A large amount of cryolite sodium aluminum fluoride is used in the process.

The amount and activity of the electricity used in the process is so great that the few visitors and workers permitted to visit the operations are advised to leave their watches at the superintendent's office to prevent them from becoming magnetized.

Like the alumina plant at Hurricane creek, this plant was constructed in units, with the first pot line in operation before the last was started. There is still considerable construction activity about the plant.

Many employes of the plant were common laborers during the height of the construction program, who received their specialized training in the manufacture of aluminum from experts sent here from other plants. More than 80 per cent of the men and women employed in the plant are from Arkansas.

### Housing and Transportation Become Serious Problems.

Housing and transportation problems have been serious in the area, thinly populated before construction of the plant got under way. Transportation facilities are limited. These problems are to receive some official consideration from the Defense Plant Corporation and others.

A contract for 320 housing units has been let, and the grading of the site is underway.

The Aluminum Company of America is operating the plant for the United States government. The plant was named for Jesse Jones, head of the Reconstruction Finance Corporation.

# State Mineral Deposits Aired In Washington

Democrat 5-17-43

## Norrell Wants Ore From Bauxite Mines Processed on Ground.

Washington, D. C. (AP) — Bauxite, manganese, coal, diamonds, quartz —Arkansas minerals passed in review during congressional hearings on the Interior Department appropriation bill, the record of which was made public today.

The mass of testimony, covering dozens of printed pages, brought forth not only glowing reports on the state's mineral wealth, but also declarations that it ought to be taken out of the ground faster.

Representatives Norrell (Dem., Ark.) and Jensen, (Rep., Iowa) charged that efforts are being made to prevent the development of manganese mining in Arkansas and other states. Norrell criticized curtailment of manganese operations in the Batesville, Ark., area.

D. F. Hewett, chief of the metals section of the U. S. Geological Survey, testified the Arkansas ore is of a high grade, but that plans for installing a mill there were stopped by the War Production Board be cause—"I am told"—the manganese crisis has passed.

Hewett said large quantities of manganese ore are being brought from Africa and India in ships that otherwise would have returned empty from the war zones.

**Profits "Awful."**

That led Rep. Fitzpatrick (Dem., N. Y.) to assert that the cost of importing a ton of manganese ore has jumped from $6.50 or $7 to $22 and $23—and "somebody must have been making an awful profit." He suggested an investigation.

Norrell said, "Frankly, I am of the opinion that efforts are being made to prevent the development of these projects, and especially do I believe this is true with reference to the discontinuance of the construction of the project at Batesville. They started developments in a big way, and then all at once they changed their opinions and said they did not need it."

Jensen commented, "The truth is that there is a bunch of these big companies that has interests of that kind all over the world, and WPB and BEW (Board of Economic Warfare), and all the rest of the departments of the government, are being used by them."

Jensen, at another point in the hearings, charged that powerful interests in this country who have interests in foreign metal mines "are doing everything possible to keep us from developing our own natural resources, even in wartimes at the expense of our government and possibly at the expense of American boys' lives and the lives of our Allies."

**Great Reserve Supply.**

The geological survey handed the committee a report on its field studies, saying that the existence of large manganese deposits near Batesville has been proved, and that "these reserves constitute a known source of manganese whenever national requirements demand the systematic development of ores of the grades that exist there."

E. W. Pehrson, chief of the economics and statistics service, Bureau of Mines, said that in March, 1943, Arkansas produced 97.3 per cent of the bauxite produced in the United States.

Dr. R. S. Dean, assistant director of the Bureau of Mines, said there are about 60,000,000 tons of bauxite and alumina-bearing clay "that we know of" in Arkansas, and that about 16,000,000 tons of this represents bauxite of a grade that can be used in existing plants or plants now under construction.

New processes are being developed, several witnesses said, for extracting alumina from the lower grade bauxite and from clay. G. F. Loughlin, chief geologist of the geological survey, said:

"The present demand for aluminum and the prospect that there will be for aluminum a much greater demand after the war than there was before, and the relatively small reserves of bauxite, which are mainly in Arkansas and are supplemented in a major degree by bauxite in certain other Southern states, makes the low grade bauxite and the clays the coming material from which, so far as I can see, aluminum must be extracted after a while."

**Wants Local Processing.**

Norrell expressed a desire that more of the Arkansas bauxite be processed in Arkansas instead of being shipped to other states. Two Interior Department officials agreed that the idea was sound. They were Arthur E. Goldschmidt, acting director of the division of power, and Dr. Paul J. Raver, administrator, Bonneville Power Administration.

Other Arkansas minerals were discussed as follows: Quartz crystal: Arkansas and California are the only two states commercially producing quartz crystal, which Loughlin testified has become "perhaps the most urgently needed strategic material." It is used in two-way radio sets.

The Geological Survey has two parties in Arkansas now in connection with quartz crystal, all of which until recently came from Brazil.

Hewett said he would expect Arkansas to make "a small but noteworthy contribution" to the more than 2,000 tons of crystal the Army hopes to get in 1943.

Diamonds: Dr. Dean said "I do not think anybody" knows the extensiveness of Arkansas' diamond deposits. He said Arkansas is the only state where diamonds are found, but that no government department has ever made an extensive investigation of the diamonds there. Loughlin said the Geological Survey would make an exhaustive study of Arkansas diamonds "if called upon by the WPB."

Coal: Dr. A. C. Fieldner, chief of the fuels and explosives service of the Bureau of Mines, said the coals of Arkansas and Oklahoma are the logical sources for coking coals for the Texas coke ovens and also for general industrial use in Missouri.

"There is a real shortage of bituminous coal in the district around St. Louis and Kansas City," Dr. Fieldner said, "which logically should be supplied from the territory. . . . There is a demand for this coal and a need for helping the operators to increase their production."

Norrell asked Dr. Fieldner about lignite, a type of coal between peat and bituminous coal. Fieldner replied that the lignite reserves of Arkansas are estimated at 90 million tons, but—

"You have, however, so much high-rank bituminous coal that I should think the development of the lignite deposits would be rather slow."

## *Man-Made Mountain—One Is Valuable, Too*

**This man-made mountain is the overburden removed in the mining of bauxite on the Reynolds Mining Co., lease just across Highway 65 from the Arkansas Confederate Veterans' Home, near Sweet Home. Hundreds of thousands of tons of earth are removed each month in these mining processes. The pit created in this particular operation ranges from 300 to 800 feet deep and extends for more than a half-mile in two directions. In the speed with which bauxite is being taken today no effort is being made to replace the soil or restore the property although some leases call for restoration. Below: This mountain is a bauxite dump where the mineral is stored until it is needed. It is located in the Sweet Home area. Note the comparative size of the dump and the truck that is bringing in the bauxite from a nearby surface mine. Both surface and underground mining are used in obtaining bauxite. Although the operations are playing havoc with the scenery, and the surface, most leases bring many times the amount the land is worth in royalties alone. More than 90 per cent of the nation's aluminum is made from bauxite from the Central Arkansas area. (Democrat Photos.)**

# State Mineral Deposits Aired In Washington

Democrat 5-17-43

### Norrell Wants Ore From Bauxite Mines Processed on Ground.

Washington, D. C. (AP) — Bauxite, manganese, coal, diamonds, quartz —Arkansas minerals passed in review during congressional hearings on the Interior Department appropriation bill, the record of which was made public today.

The mass of testimony, covering dozens of printed pages, brought forth not only glowing reports on the state's mineral wealth, but also declarations that it ought to be taken out of the ground faster.

Representatives Norrell (Dem., Ark.) and Jensen (Rep., Iowa) charged that efforts are being made to prevent the development of manganese mining in Arkansas and other states. Norrell criticized curtailment of manganese operations in the Batesville, Ark., area.

D. F. Hewett, chief of the metals section of the U. S. Geological Survey, testified the Arkansas ore is of a high grade, but that plans for installing a mill there were stopped by the War Production Board because—"I am told"—the manganese crisis has passed.

Hewett said large quantities of manganese ore are being brought from Africa and India in ships that otherwise would have returned empty from the war zones.

**Profits "Awful."**

That led Rep. Fitzpatrick (Dem., N. Y.) to assert that the cost of importing a ton of manganese ore has jumped from $6.50 or $7 to $22 and $23—and "somebody must have been making an awful profit." He suggested an investigation.

Norrell said, "Frankly, I am of the opinion that efforts are being made to prevent the development of these projects, and especially do I believe this is true with reference to the discontinuance of the construction of the project at Batesville. They started developments in a big way, and then all at once they changed their opinions and said they did not need it."

Jensen commented, "The truth is that there is a bunch of these big companies that has interests of that kind all over the world, and WPB and BEW (Board of Economic Warfare), and all the rest of the departments of the government, are being used by them."

Jensen, at another point in the hearings, charged that powerful interests in this country who have interests in foreign metal mines "are doing everything possible to keep us from developing our own natural resources, even in wartimes at the expense of our government and possibly at the expense of American boys' lives and the lives of our Allies."

**Great Reserve Supply.**

The geological survey handed the committee a report on its field studies, saying that the existence of large manganese deposits near Batesville has been proved, and that "these reserves constitute a known source of manganese whenever national requirements demand the systematic development of ores of the grades that exist there."

E. W. Pehrson, chief of the economics and statistics service, Bureau of Mines, said that in March, 1943, Arkansas produced 97.3 per cent of the bauxite produced in the United States.

Dr. R. S. Dean, assistant director of the Bureau of Mines, said there are about 60,000,000 tons of bauxite and alumina-bearing clay "that we know of" in Arkansas, and that about 16,000,000 tons of this represents bauxite of a grade that can be used in existing plants or plants now under construction.

New processes are being developed, several witnesses said, for extracting alumina from the lower grade bauxite and from clay. G. F. Loughlin, chief geologist of the geological survey, said:

"The present demand for aluminum and the prospect that there will be for aluminum a much greater demand after the war than there was before, and the relatively small reserves of bauxite, which are mainly in Arkansas and are supplemented in a major degree by bauxite in certain other Southern states, makes the low grade bauxite and the clays the coming material from which, so far as I can see, aluminum must be extracted after a while."

**War Local Processing.**

Norrell expressed a desire that more of the Arkansas bauxite be processed in Arkansas instead of being shipped to other states. Two Interior Department officials agreed that the idea was sound. They were Arthur E. Goldschmidt, acting director of the division of power, and Dr. Paul J. Raver, administrator, Bonneville Power Administration.

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Democrat 5-26-43

# State Bauxite Board Holds First Meeting

Members of the new Bauxite Commission, meeting last night in Governor Adkins' office with the Confederate Home Board, discussed several possible locations for a new Confederate Home which will be needed when bauxite mining operations begin on the present grounds.

The location that seemed to be most favored by members of the two agencies was a site just north of the Arkansas School for the Blind on state land. There also was some discussion on the old Shrine Club building in Saline County.

**Must Obtain Priorities.**

It will have to be determined whether priorities can be obtained for materials for a new building for the inmates of the home. Members believe, however, that since the government is eager to secure bauxite deposits underlying the home's grounds that priorities will be forthcoming for new housing for the inmates.

The group discussed plans for making a preliminary survey to determine the amount and the quality of the bauxite ore. Under provisions of the act, passed by the 1943 legislature, $15,000 would come from geieral revenue funds for this purpose, with this amount to be repaid from proceeds of the sale of the ore.

**Hardin Named Chairman.**

Governor Adkins acted as temporary chairman of the new Bauxite Commission until Joe Hardin, Grady, former state revenue commissioner, was elected chairman. All other members of the commission also attended. They include Dwight H. Crawford, Arkadelphia, attorney member, who was named secretary last night; Dr. J. D. Jordan, Little Rock; A. D. Mason, Camden, and Sloan Rainwater, Imboden.

George Turner is chairman of the Confederate Home Board. Others who attended included state Comptroller J. Bryan Sims; state Geologist Joe W. Kimzey, and Nelson Cox, Camden, Ouachita County representative, who aided in sponsoring the bill in the legislature. Mr. Kimzey and Mr. Cox were asked by Governor Adkins to serve in an advisory capacity.

Date for the second meeting has not been set. It will be announced by Chairman Hardin.

### Commission Begins Plan To Mine Bauxite.

Gazette 5-26-43

Meeting with the Confederate Home Board, the five-member Bauxite Commission to supervise mining of bauxite ores underlying the institution's property at Sweet Home, began plans to have the land drilled at Governor Adkins' office last night.

Members said arrangements to provide for comfortable and adequate housing for patients of the home would be made as soon as the drillers are ready.

Joe Hardin of Grady, former state revenue commissioner, was elected chairman and Dwight H. Crawford of Arkadelphia, the commission's lawyer member, secretary. All of the other members attended. They are A. D. Mason of Camden, Sloan Rainwater of Imboden and Dr. J. D. Jordan of Little Rock.

Also present were state Geologist Joe W. Kimzey and Representative Nelson Cox of Ouachita county, one of the sponsors of the 1943 act permitting the Confederate Home property to be mined. Data for a second meeting was not set. It will be fixed by Chairman Hardin.

Democrat 5-27-43

### Bauxite Location Tests Are Started

Locations for bauxite drillings on the west grounds of the Confederate Home were begun yesterday by the State Geological Department. A contract for test hole drillings will be awarded by the commission in a few days on the basis of the locations.

State Geologist Joe Kimzey believes sufficient ores could be obtained on the west grounds without disturbing the buildings immediately.

New quarters for the veterans will be built from the first $100,000 realized from the sale of the ore.

### Confederate Home Properties Surveyed for Bauxite.

Gazette 5-30-43

The state Geological Department will attempt to determine if there is enough bauxite ore on the back side of the Confederate Home at Sweet Home to justify the new Bauxite Commission entering into obligations for new buildings, if the property is mined, Geologist Joe W. Kimzey said yesterday.

No buildings are located in the area and inmates of the home would not be bothered by mining of the back side.

The Geological Department completed drill hole locations on the property yesterday. Mr. Kimzey said an estimate of the footage would be completed in about three days.

The Bauxite Commission held its first meeting Tuesday in Governor Adkins' office and made plans to have property surveyed for bauxite ore.

### Ruling Asked On Mortgaging of Ore.

Gazette 6-1-43

An opinion from Attorney General Guy E. Williams may determine whether the state Bauxite Commission will mine bauxite ores underlying the Confederate Home at Sweet Home.

Dwight H. Crawford, Arkadelphia lawyer and commission secretary, asked the attorney general yesterday whether the body can mortgage the ore to enable it to move Confederate Home inmates to other suitable housing facilities. If the commission cannot legally negotiate the mortgage, no funds will be available to care for the approximately 85 patients at another location.

Democrat 6-8-43

### State's Bauxite Ore Not to Be Mortgaged

Attorney General Guy E. Williams has announced that the State Bauxite Commission had withdrawn its request for an opinion on its plan to mortgage bauxite deposits underlying the Confederate Home. Dwight H. Crawford, Arkadelphia, commission attorney-member, explained the agency had decided against a mortgage.

The commission, needing funds

Gazette 6-9-43

### Tells of Bauxite Production.

America is producing all the bauxite it can to aid the war effort, R. P. Bryson, assistant geologist, United States Geological Survey, told the Kiwanis Club at its weekly luncheon at the Albert Pike hotel yesterday. Bauxite also is especially important in production of hi-octane gasoline, as a water softener in the making of metallic aluminum and for abrasives, he said. Bauxite is not found continuously below the ground but has to be found through geological surveys. The United States is mining more bauxite ore today than at any time since its discovery in 1883, at Rome, Ga. Dr. Fred D. Woods, president, presided.

### Bauxite Severance Tax Collections Up.

Ark. Dem. 9-5-43

Bauxite severance tax collections have soared from $5,404.66 in July, 1941 to $50,404.85 last month, State Revenue Commissioner M. B. McLeod reported yesterday. The increase represented heavier production in Saline and Pulaski counties since the Hurricane Creek aluminum plant and Lake Catherine aluminum plant were completed.

During that 25-month period, the state collected $482,351.15 in bauxite severance taxes. The tax was 2.6 per cent of gross value at ponit severance, which was figured at $2 a ton when the delivered price was $4 a ton.

Severance tax remittances on oil and gas and coal have increased also, but less sharply. Timber severance tax collections have dropped.

Sept 4 1943

### Warning Given Bauxite Workers

Arkansas Gazette

Bauxite workers have been guilty of more violations of rationing regulations than any other group of essential workers, Alton B. Raney, chairman of the Pulaski County War Price and Rationing Board, said last night at a board meeting held to act on cases of misuse of gasoline and tire allotments.

"A majority of the war industries have transportation panels to recommend issue of supplementary gasoline rations," he said. "In most cases they have adhered strictly to the rationing regulations and have co-operated with this board in every instance."

Bauxite workers are not handled through the transportation panel system because of the number of companies involved, Mr. Raney said. He warned that their place in the essential category did not entitle them to misuse allotments which are not available to the average citizen.

**Five Lose Ration Books.**

R. M. Breen, 3225 Arch street, was asked to surrender to the board his "A" and "C" books. He was charged with allowing a traveling companion to drive his car 60 miles an hour on an out-of-state trip. The board warned that persons charged with speeding outside of Arkansas would be held responsible to their local board.

"A" cards were surrendered to the board on charges of speeding by R. F. Carson, 3816 West Seventeenth street, and Thomas Mitcham, 707 State street, for 30 days, and Horace Morris, 1327 Hanger street, for 60 days. Fred Brooks, 1817 High street, was ordered to refrain from driving for 60 days. He was ordered to surrender gasoline rations issued for use in his sister's car, which he was driving when arrested for speeding.

**Warnings Issued.**

Others warned by the board that a second infraction of regulations would result in severe penalties were: W. R. Campbell, 2507 Howard street; A. D. Steel, 1518 Bishop street; J. R. McHugh, 1515 West Eighth street; E. H. Martin, 3200 Fair Park boulevard; Doyle Hazel, 3001 Fair Park boulevard; Virgil L. Whitting, 1234 West Tenth street; Charles Lippencott, 312 South Martin street; Mrs. Ben Traylor, 1705 West Eighth street; James Bell, 616 West Ninth street; James Conway, 1822 Pulaski street; L. Fowler, 3514 West Fourteenth street; William King, 301 Haywood street, and Hollie Mullens Jr., 5500 W. Thirty-third street.

# Bauxite Mine Development Threatened

Arkansas Dem. 9-6-43

Governor Adkins telegraphed the War Production Board yesterday that if it enforced a prohibitive penalty placed recently on bauxite ore containing ferrous iron it may slow down development of Pulaski County's extensive bauxite deposits.

The telegram, which went to A. A. Bunker, of the aluminum and magnanese division of the WPB, urged that serious consideration be given to elimination of a clause providing a penalty of 43 cents a ton for each one per cent of ferrous iron content in excess of a six per cent limit.

The governor said he would be reluctant to recommend that the state Bauxite Commission sign a contract with the Metals Reserve Corporation, an agency of the WPB, for mining of bauxite ore on the Confederate Home grounds if the clause is enforced. Tests now are being made on the Confederate Home grounds to determine the amount and quality of bauxite deposits there.

**Processors Enter Complaint.**

Until a few weeks ago, contracts granted by the Metals Reserve Corporation contained no penalty for ferrous iron. Complaints by aluminum companies that excessive iron increased aluminum production costs and tended to slow operations because of inadequacy of settling basins started the move, local independent producers said yesterday. It was reported at the time, however, that as soon as adequate facilities were completed, the iron content would not be a hinderance to efficient operation, they said.

The 43-cent penalty was inserted in recent contracts between the Metals Reserve Corporation and small independent operators. The operators said that while drill tests showed minimum ferrous iron content, tests when the metal was stock piled, made on a formula of a big aluminum company, caused penalties that were disastrous.

Several Pulaski County operators have asserted that unless some corrective steps are made, they may be compelled to shut down and will be unable to fill their existing contracts. Some operators have contracts which do not contain the iron penalty clause, and these operations are expected to continue until the expiration of the contracts.

# RULING BY WPB CAUSES BAUXITE MINES TO CLOSE

## Penalty Strangles Small Operators.

Gazette Sept 13 43

Mining of bauxite in several of Pulaski county's newly-opened fields ceased yesterday as a result of a recent War Production Board penalty ruling, which operators said had culminated the "slow strangulation" of independent mine operation.

Contractors and independent operators predicted that Sweet Home would be a deserted area of open bauxite mines within a few months unless the prohibitive penalty is removed.

Despite a recent WPB increase of 15 cents per ton, operators agreed that it would be impossible to continue mining without loss under the present ruling, which imposes a penalty of 43 cents for each one per cent of ferrous iron content per ton of bauxite over six per cent.

### Contractor Prepares To Move Out Machinery.

One mining contractor, who was prepared to start operations when the penalty was imposed, moved his machinery from the mine yesterday. He dismissed his employes after retaining them on the pay roll several days in anticipation of a revision of the ruling. The contractor said that after finishing a current small operation, he would be forced to leave the field.

An independent operator said mining would continue in some fields until January, when contracts not including the new provision expire.

"If no revision of the ruling is made, mining will cease in these locations," he said. "Operators cannot afford to sign contracts which call for operation at a loss."

Operators and contractors said that operations had been curtailed for several reasons. They charged that WPB had ceased releasing necessary mining machinery and that skilled workmen had, in many cases, been called for service in the armed forces.

### Invests $24,000, Then Has To Cease Operations.

An operator whose mine had been drilled and stripped at a cost of $24,000, halted operations when the new ruling was announced. He claimed that operators had considered bauxite upon the basis of available alumina rather than upon per cent of iron content and were taken by surprise at the sudden WPB provision. The WPB had previously imposed a penalty upon silica content in the ore, he said.

Since silica or iron is always present in our ore, the two penalties make profitable operation impossible," he said.

Operators suggested that a ruling allowing a premium of 43 cents for each per cent under the prescribed six per cent would allow profitable operation, provided WPB allowed blending of ores to meet requirements.

### Merchants at Sweet Home Fearful of Consequences.

Some Sweet Home merchants said they would be forced to sell their stocks and go out of business if the mining trade was removed. A grocer said he opened his store eight years ago with a stock worth $550.

"My stock is now worth approximately $15,000 and I have expanded to another store," he said. "If mining operations cease I will be forced out of business, since more than 50 per cent of my customers are mine employes."

group for the purpose of installing and operating their own alumina plant for the reduction of bauxite ore to meet the recent War Production Board penalty ruling, a spokesman for the independent operators stated today.

The Metal Reserve Co., recently penalized all operators producing ore of over 6 per cent ferrous iron content 43 cents for each 1 per cent above percentage. This penalty followed WPB's increase of 15 cents per ton for ore.

**To Fill Existing Contracts.**

The spokesman for the independent operators declared the ruling will "just about put some of us out of business so far as future contracts are concerned, although present contracts hold, and mining will be continued until these contracts are completed."

"If we can construct a small alumina plant to process these ores which are penalized, in the areas which they are objecting to, we can increase our services to the government and take the loss of the government's hands," he added.

**Seek Postwar Benefits, Too.**

He pointed out that the independent operators, if they should complete their organization and install their plant, will have an opportunity to bid on the alumina plant now serving the bauxite area of Arkansas after the war.

"This attempt to put the independent operators out of business is the result of the failure of the purchasing agents to purchase the government's stock pile ore of over 6 per cent ferrous iron content," he explained. "And the government will eventually take the loss. But if we are permitted to operate our own plant we can process our own alumina and thereby save the government from loss and at the same time protect our own interests."

**Suggests Blending Plan.**

Joe W. Kimzey, state geologist, charged the "WPB with failure to apply all practical means" in solving the problem which he said penalized independent producers. He suggested the war agency allocate high ferrous bauxite ores to stockpiles of low ferrous ore to hold the average ferrous content below 6 per cent.

Kimzey said independent operators were in a dilemma as the result of WPB's recent placing a 43 cent penalty for each 1 per cent of ferrous iron content above 6 per cent per ton of bauxite ore." He added this had "caused some concern among agencies charged with responsibility of keeping an uninterrupted flow of raw ores available for the war effort."

As an alternate to pooling stockpiles of low ferrous and high ferrous bauxite, Kimzey suggested that producers be given a premium on ores of less than 6 per cent ferrous He said, however, this alone would not be a solution since many operators could not qualify for premiums sufficient to offset penalties.

Larg ecompanies with several large pits in operation are already applying the blending methods, Kimzey said.

**WPB Officials Surprised.**

War Production Board officials in Little Rock were surprised to learn today their organization is held responsible for the recent panic of independent ore contractors and producers, an authoritative spokesman said this morning.

"WPB does not have a thing to do with making contracts for ore or the penalties which may become involved," one spokesman said. "The Metals Reserve Co., an RFC agent, is responsible for certain government contracts and ore purchases. All the WPB is interested in is production and in allotting equipment.

"We are going ahead with production which is at normal. The small operators will get the same consideration the larger ones do, but we are neither the direct purchasing or the penalizing agent. Our responsibility is production and we are going to see that this keeps up to normal."

From another authoritative source it was learned that the penalty is being inserted as a clause in new contracts being made by the Metal Reserves Company. It has been the new contracts which have arrived from Washington, D. C., where they are made, which have brought about the present controversy, it was explained.

"So far as it influences the operators seriously," said one spokesman, "I believe the situation has been greatly exaggerated." Another said, "You would not pay the same for low grade cotton that you would for a higher grade would you?"

Still another said, "This entire matter has been grossly exaggerated."

# Bauxite Mine Owners Offer To Erect Plant

### Alumina Processing Unit Proposed To Overcome Handicaps.

Democrat Sept. 10, 1943

Contractors and independent operators working bauxite mines in Pulaski County are organizing a

# KIMZEY OFFERS METHOD TO LIFT PENALTY ON ORE

Ark. Gazette 9-11-43

## Geologist Proposes To Blend Bauxite.

State Geologist Joe W. Kimzey moved yesterday to help solve a newly developed problem that threatens to affect production of alumina-bearing bauxite by independent operators in Pulaski county.

Apparently hoping to meet a federal restriction which penalizes producers of ore containing more than six per cent ferrous iron, Mr. Kimzey proposed that bauxite of both low and high ferrous content be blended in order to maintain an average below the six per cent maximum.

Changing policy "in the middle of the stream," the Metals Reserve Company has offered new contracts providing a penalty of 43 cents a ton for each per cent of ferrous iron above six per cent. Some operators have halted production and others are protesting that such a penalty would force them out of the business in which they had just invested heavily.

### Agencies Don't Agree On Which Requested Penalty.

War Production Board officials indicated the penalty clause was ordered by the Metals Reserve. Sources close to the latter agency said the order resulted after a conference between officers of several federal organizations.

One spokesman predicted the controversy would be "ironed out" in a few days.

### Would Overcome Obstacles To Nation's War Effort.

Mr. Kimzey's statement follows:

"The recent application of a penalty on ferrous iron content of bauxite ores being mined in the Pulaski county pits has created a dilemma among independent operators, and also has caused some concern among agencies charged with responsibility of keeping an uninterrupted flow of raw ores available for processing plants. There are certain immutable laws of nature which set up conditions for which no individual or agency can be blamed, but it is imperative that all facilities and authority be utilized to overcome any obstacle to the war effort.

"The independent operators have played an important role in production and it is this class only who have had to take a gambler's risk in order to play this important role. Larger interests are apt to enjoy more protection against loss hazards from beginning to the end. I assume these elements are recognized by Metals Reserve Company and WPB and that every reasonable effort will be made to reach a solution of the problem which is so far reaching from the standpoint of individual operators, the county, state and nation. Hence I assume that without much delay a system of blending high ferrous ores in stockpiles with low ferrous will be adopted so the ferrous ores will not be lost to the war effort and those independent operators who have invested their money in good faith will not be victims of a failure of those in authority to apply all practical means to a solution.

"There may be other angles of which we are not advised but in the light of obvious material it is my opinion that to allocate the high ferrous ores to stockpiles of low ferrous would be a simple means of holding the average ferrous content below six per cent, by which means no one would be injured and the enemy would not enjoy the satisfaction of our failure to enjoy the full use of a vital resource.

"In any consideration of a penalty for ferrous iron above six per cent it would appear to be consistent for producers to enjoy a premium on ores of less than six per cent ferrous. However, this would not alone be a solution since so many operators could not qualify for premiums sufficient to offset penalties.

"Large companies with several pits in production are already applying the blending methods above proposed.

Sunday, September 12, 1943.

### There Must Be a Way to Iron Out This Bauxite Trouble.

Whatever the reasons which may have seemed to justify the placing of virtually prohibitive penalties on bauxite with a ferrous oxide content of more than six per cent, the effect of this action was to change the rules in the middle of the game in a way that is said not only to involve serious financial loss for mine operators but to threaten to deprive the war effort of Pulaski county's newly developed bauxite deposits.

In the past silica has been the only impurity carrying a price penalty in the bauxite industry. This long established practice had been followed until now by the Metals Reserve Company, the government buying agency. Under it numerous independent operators and contractors had expended substantial sums in stripping operations and in extracting and stockpiling the bauxite ore itself. And now suddenly, as the time comes for renewals of contracts, ferrous oxide content is heavily penalized.

The explanation given is that this oxide of iron gums the filters at the alumina plant and thereby slows production—a more serious matter than it would be if alumina were being processed for peacetime use instead of to meet the rush demands of war. But the public mind is confused by reports that while the company operating the alumina plant at Hurricane Creek refuses to accept further shipments of ore from the huge 750,000-ton stockpile on the Arch Street pike, another company operating in Alabama pays little attention to ferrous iron. And laymen are moreover moved to wonder what will be the effect on wartime production of aluminum if important deposits of the basic ore are practically consigned to the waste pile for the duration.

From every viewpoint the situation is most unfortunate. State Geologist Joe W. Kimzey suggests that since a large proportion of Arkansas bauxite runs less than six per cent ferrous oxide the difficulty might be overcome by blending high and low ferrous iron content ores to maintain an average content below the price penalty level. That is a matter for determination by technically qualified men. But certainly every effort should be made to find a practical remedy.

# OFFICIALS SEEK PLAN TO SAVE PULASKI MINES

Gazette

lle - Sept. 12, 1943

## Operators Distrust U. S. Agencies.

A compromise under which Pulaski county bauxite producers might escape the strangulation of prohibitive penalties imposed by federal agencies was proposed by government officials yesterday.

They suggested that operators blend ores containing high and low ferrous iron content in an effort to obtain an average percentage that would not be penalized. They outlined a plan under which one truck loaded with bauxite from a low-content pit be timed to reach the Ward's Spur stock pile simultaneously with a truck from a high percentage mine. A sample from each truck would be taken and mixed together, and each load would be given credit for the resulting average.

No federal official would consent to direct quotations, implying that specific announcements must be made at Washington. They said they had received no instructions to place the blending proposal into effect, but indicated such a plan might be approved if discussed with Washington authorities.

### Operators Lack Confidence In Federal Officials.

Independent operators, who own only one pit, were reluctant to agree to the plan declaring they still had no assurance that the "average" after blending would continue to meet approval of the War Production Board and Metals Reserve Company for any length of time.

"The federal agencies have changed horses in the middle of the stream once," an operator said. "We don't know when the same thing might occur again."

The Metals Reserve Company recently offered new contracts to Pulaski county operators that contained clauses fixing a penalty of 43 cents a ton for each one per cent of ferrous iron content above six per cent. This was done, all agencies agreed, because the Republic Mining and Manufacturing Company of Bauxite complained that presence of ferrous iron increased the cost and slowed down production.

Since most of the Pulaski county bauxite is being sold to Metals Reserve at about $4.50 a ton, small operators said that the penalty would force them to quit business. Some have shut down.

Operators said that it would be difficult to work out the blending program because most of the high ferrous content is mined on the Arch Street pike and much of the low content ore is shipped from the opposite side of Granite Mountain near Sweet Home.

### Says Agency Can't 'Bail Out Operators.'

A responsible federal official declined to consider a counter-proposal that a premium of 43 cents a ton be allowed for each per cent of ferrous iron under six per cent. He said his agency couldn't "bail out" operators who had spent small fortunes testing and stripping earth from bauxite deposits, only to discover that their contract contained a clause that made mining impossible.

"That's like a poker player who loses his money and then comes around crying and wants someone to give his money back," he said.

### Huge Government-Owned Stockpile Continues to Grow.

American Cyanamide & Chemical Company and other producers who hold contracts without the penalty clause are continuing to deliver bauxite to the stock pile at Ward's Spur, although the Hurricane Creek alumina plant is refusing to accept delivery for processing. Refusal is based on the ground the ore contains too much ferrous iron.

The pile now contains about 750,000 tons, for which the government has paid about $3,000,000. Much of it was furnished by American Cyanamide, which last week received the Army-Navy "E" award for its work in producing this bauxite that's being permitted to pile up.

An official in authority said shipments from the stock pile will begin October 1 after mixing with bauxite from the Sweet Home area. He said the Republic company is perfecting its settling equipment to handle this type of ore. Operators were told several weeks ago that this equipment would be installed September 1.

Governor Adkins, moving cautiously after the new penalty was inserted in contracts without warning, said he will recommend that the state Bauxite Commission postpone development of deposits underlying the Confederate Home until the stuation is cleared up.

Funds for the Arkansas Livestock Show Association's proposad permament quarters, for a new building to house residents of the Confederate Home and for vocational education depend on development and sale of this state-owned bauxite.

# Compromise Expected In Bauxite Row

Ark. Dem. 9-13-43

Settlement of the conflict over the 43 cents per ton penalty on bauxite ore, for each one per cent above six of ferrous iron content, is possible during the coming week, spokesmen for the producing operators and government authorities agreed today.

Chemists representing both sides, through Metals Reserve Company, a subdivision of the RFC, the WPB, and the mining and operating interests, are checking the reported reduction in the ferrous content of ore through oxidization while on stock piles.

Both government officials and operators agree that blending of the high grade ore with that containing more than six per cent ferrous content may prove the ultimate solution. Representatives of the operators, especially those in the Sweet Home and other bauxite mining areas of Central Arkansas, where the lower grade ore is found, say the recent penalty will practically put them out of business. They contend the penalty is discriminatory in that it applies to them while the larger operators can mix low with high grade ore in stock piles in order to reduce the ferrous content to or below six per cent.

One operator said that only a few of the latest operators to come into the field are hurt at the moment, but that with the expirations of existing contracts, many others will be penalized. He said the Arkansas Bauxite Shipping Company will not accept low grade ores, more than six per cent ferrous content, for shipment to the Baton Rouge alumina plant.

"If the ore is not good and the government can't afford to pay for it, the taxpayers' money and much needed manpower is being wasted by the large concerns which continue to produce and use the low grade ore," this spokesman said.

# BAUXITE TOWN SYSTEM TAKEN OVER BY A. P. L.

Ark. Gazette 9-15-43

## Announcement At Meeting.

Purchase of the electrict distribution system in the town of Bauxite by the Arkansas Power and Light Company for $27,325 was announced by C. H. Moses, president of the company, at the annual meeting of the Board of Directors at the LaFayette hotel yesterday afternoon.

The system, which was owned by the Republic Mining and Manufacturing Company, a subsidiary of the Aluminum Company of America, is composed of 2,300 volt circuits serving 325 customers. It has obtained power from the Arkansas Power and Light Company. The power company's standard rate schedule for fourth class towns will apply to the system, Mr. Moses said. Regulatory bodies have approved the purchase.

The power company also has purchased the distribution system of the village of Norton, near Bauxite, serving about 15 customers. This town was developed by the Norton company, which uses bauxite to make abrasives.

Arrangements for the power company to take over the generating and distribution system of the Citizens Electric Company at Hot Springs, which the company recently leased for 35 years at $200,000 a year, were outlined at the meeting. The power company has an option to buy the Hot Springs property at $2,000,000.

### Dr. Bridges Added To Board of Directors.

The directors' meeting followed the annual stockholders' meeting, at which the Rev. Ben L. Bridges, general secretary of the Executive Board of the Baptist State Convention, was added to the board.

A total of 1,242,451 shares of stock, amounting to about 90 per cent of the total outstanding, was represented.

Mr. Moses was chairman and L. Garrett of Pine Bluff secretary of the stockholders' meeting. J. A. McDougal, and Binch Bottroff, Little Rock stockholders, were ballot inspectors.

### Taxes Take Big Part Of Company's Income.

The company's operating revenue for the year which ended August 31 were $12,419,906, a decrease of $1,065,841, or eight per cent under the same period last year, Mr. Moses reported. Operating expenses, including taxes, for the peers, a total of 107,755, an increase of five per cent under the same period last year.

Net income for the 12 months was $1,427,760, or 1.51 times the full dividend requirements for the current year. Taxes charged to operating expenses during the period were $2,020,620, equivalent to 16 cents on each dollar of operating revenue, and they exceeded dividend requirements by $1,073,580 and exceeded pay roll requirements by $96,679.

At the end of August the company was serving 101,843 electric customers and 5,912 gas customers, a total of 107,755, in increase of three per cent for the year.

# Bauxite Ore Situation Unfavorable

Ark. Dem. 9-16-43

The present investigation of the bauxite ore situation, being reviewed by government agencies, does not look favorable for the small operator, a spokesman for the bauxite producers said today.

"The fact that the government has refused to permit one-pit operators to consolidate with larged operators for the purpose of mixing low grade with high grade ore, appears as an ill omen to me," said this large operator. "We had asked for permission to do this. It was refused."

The spokesman predicted that unless there is a change of attitude on the standpoint of the government "one-pit operators will be wiped out."

Another large operator said "the monopoly" is not going to aid either production or price, eventually, but will merely work against the small one-pit operator and put them out of business.

One operator, classed as a large operator, said, "The great danger lies in the fact that larger operators are becoming fearful of the future of their investments and some of them will go out of business. Possibly this is what they want. If so they may as well turn the entire bauxite industry over to 'the monopoly'."

The problem arose when new contracts, made by the Metals Reserve Co., a subsidiary of the RFC, carried a clause penalizing operators 43 cents per ton for each per cent over six per cent ferrous iron content in delivered ores.

Large contractors are said to be mixing low and higher grade ores in stock piles to bring the grade within the required six per cent, while single pit operators, in sections of the bauxite field where the ferrous content is over six per cent, have no means of raising the grade on their production.

WPB officials have refused to accept the responsibility for the penalty, saying their agency controls production and allocation of equipment, and not the price of ore.

quest that something be done to assist Pulaski county operators and to maintain the flow of ore to Hurricane Creek alumina plant and the Jones Mills Aluminum plant.

Governor Adkins telephoned to J. F. Cowley of the Aluminum and Magnesium Branch of WLB, who proposed weighting the average analysis over the entire contract period with each producer.

Some sources said this plan was even better than blending high and low ferrous content ore in the field as suggested by Joe W. Kimzey, state geologist.

In any event, it was pointed out that the Aluminum Company of America, operators of the Hurricane Creek and Jones Mills plants, would not be affected.

### Three Proposals Advanced As Possible Solutions.

A high ranking official of the Aluminum Company, expressing deep interest in any solution to rescue the Pulaski county producers, said three proposals could be discussed to advantage.

Blending high and low ferrous content ore in the field.

Weighting average over the life of each contract permitting the producer to offset high ferrous content with ore of known low content.

Increase the basic price or reduce the new penalty of 43 cents per ton for each one per cent of ferrous iron content above six per cent.

Governor Adkins asked WPB to increase the basic price or to approve a plan for blending. WLB's response will have a bearing on the development of the state-owned bauxite deposits under the Confederate Home property.

### Fair Treatment Promised By Federal Official.

Following are excerpts of Mr. Bunker's letter to Senator McClellan:

The new ferrous iron regulation "was neither aimed at any individual producer or group, nor inspired by any of the large producers."

"It is the common practice in the purchase of ore of any metal to apply a system of penalties and premiums to insure that metallurgical specifications are closely approximated. Until the present great expansion of aluminum production, it was unnecessary to apply a system to bauxite. It was well known that the silica content of bauxite had a direct bearing on the aluminum recovery but the demand for bauxite was comparatively small and the resources of high-alumious, low-silica material so ample that the utilization of substandard material did not enter into the picture."

"I believe the Metals Reserve Corporation is working out an arrangement to cover local contracts whereby they will be assured of equitable treatment. I can say that if other instances arise where a contract for delivery has been signed in good faith and the operator stands to lose because of a previously unsuspected high ferrous iron content, this division is prepared to recommend to Metals Reserve Corporation similar equitable treatment.

"Our initial impression is that there will not be many instances where relief will have to be extended to existing contracts."

Mr. Bunker wrote that not only are the Arkansas mines meeting current requirements, but that WLB has achieved its objective of a reserve of about 2,000,000 tons in stockpiles.

"We can now call a halt to further expansion and even contemplate some reduction in current production so as to avoid further stockpile accumulation," he wrote. "Obviously the logical place to halt expansion is not to sign new contracts for the purchase of bauxite high in ferrous iron content."

tion, the academy said, but all have been found feasible.

**Tells of State's Supplies.**

The area south and east of a line running roughly from the northeast to the southwest corner of Arkansas contains clays of varying thickness, many of which have been found to contain as high as 30 per cent alumina, the material from which aluminum is made, he said.

"Any time they want to change to bauxite-bearing clay, Arkansas, while it won't have a monopoly, will be capable of supplying a great deal," Mr. Kimzey said. "They won't have to go to great trouble to get it," he added.

He said the state also has millions of tons of "borderline bauxite" in Pulaski and Saline counties with an alumina content higher than clay but lower than the 50 per cent average required of present ores.

The south half, especially, of Arkansas' coastal plain has clays bearing a high per cent of alumina, Mr. Kimzey said. Some clays used around Malvern for making brick have "30 per cent or better" of alumina.

Germany, Japan and Russia use aluminum obtained from low-grade sources, Mr. Kimzey said. Some have developed processes for obtaining the material from syenite, or "mother of bauxite."

Mr. Kimzey said Congress has shown an interest in production of aluminum from clay and other domestic material, probably with the idea of breaking the aluminum monopoly which existed before the war.

**Plant Could Be Converted.**

Mr. Kimzey said he believed there was "no question" that an alumina plant operated by the Republic Mining and Manufacturing Company, a subsidiary of Aluminum Company of America, near Bauxite is capable of being converted "with certain alternations" into a plant for processing low-grade materials.

The aluminum company, whose profits are guaranteed by the government, has an option to buy the government-built plant after the war, he said.

# Senators Join In Bauxite Protest

Ark. Dem. 9-22-43

Moving to aid Pulaski County bauxite producers, Sen. Hattie W. Caraway and Sen. John L. McClellan have added their voices to the demand that the War Production Board eliminate a penalty on bauxite ore containing ferrous iron.

A dispatch from Washington stated the senators believe the provision would affect development of Pulaski County deposits, and requested revocation of a clause written into contracts made by the Metals Reserve Co. with Pulaski operators which provides a penalty of 43 cents a ton for each one per cent of ferrous iron content over six per cent.

The senators were informed by a WPB official that the agency will discuss the problem with the Metals Reserve Co. and Pulaski operators, and that the WPB is preparing a detailed memorandum on the subject.

Governor Adkins, who recently protested the penalty in a telegram to the WPB, told newspapermen he woud be slow to recommend signing of a contract for development on the Confederate Home grounds as long as the provision is in effect. The WPB has said, however, what effect the clause will have on mining at the home cannot be determined until test drilling and assay work reveals the iron content of the deposits.

# PROMISES HELP FOR PULASKI'S BAUXITE MINES

Ark. Gazette 9-28-43

## U. S. Official Gives Assurance.

The War Production, Board is ready to aid Pulaski county bauxite producers who have signed contracts in good faith "and stand to lose because of a previously unsuspected high ferrous iron content."

This promise was made by A. H. Bunker, director of the Aluminum and Magnesium Division, in a letter to Senator McClellan following a re-

# *Norrell Leads Fight to Get Bauxite Mined*

Democrat 2-12-45

Washington — Arkansas congressmen are making every effort to have the government mine the rich fields of bauxite in Arkansas, which are rapidly being ruined.

Representative W. F. Norrell is leading the fight since most of the ore lies in his district south of Little Rock.

The War Production Board claims it has sufficient reserves of bauxite to last another year and has no authority to act to conserve the Arkansas ore.

Meanwhile, the Bureau of Mines has reported that the bauxite is being spoiled by the caving in top crust of earth. Silica is seeping into the ore and in time will make it worthless.

The matter is now before the Budget Bureau.

Norrell emphasizes that the Arkansas delegation does not want to interfere with the war effort but that they are hopeful that some government agency has the authority and funds to save the ore.

# *Bauxite Clays Plentiful,*

Ark. Gazette 11-9-43

## *Says Kimzey*

When the federal government decides to obtain its aluminum from clays, Arkansas will be in a good position to supply "countless millions of tons," state Geologist Joe W. Kimzey said yesterday.

He referred to a recent report of the National Academy of Sciences that seven processes for making aluminum from domestic materials, including clays, have been developed. The processes are not ready for commercial produc-