

THE BIG JOB

BASIC MAGNESIUM NEWS LETTER

NUMBER 3

OFFICE OF PUBLICATION
DEPARTMENT OF INDUSTRIAL RELATIONS

JULY 9 1942.

You'll Make a Boom Town out of Tokio

A NEW HISTORY FOR NEVADA

You, and you, and you--BMI men and women, McNeil workers, crews of Macdonald Engineering, Fritz Ziebarth, Engineers Limited, J. M. Montgomery; you, with Southwestern Engineering, Harrop Ceramic, H. K. Ferguson--you, collectively are well on the way to bringing production into a plant the like of which you never saw and about the operation of which most of you know nothing at all. Write that down in the book, you historians, so future generations can read it and cheer.

TO COUNT A BILLION WOULD TAKE 16 YEARS

On a large hunk of Hell's half acres, without water, without power, with almost no houses; you have laid down and built up a gigantic industry. Into it up to June 1st had gone right close to one billion pounds of materials, or about half a million tons, a great portion of which was strange and new stuff never before manufactured in the United States. It came in railroad trains and trucks and you unloaded it all.

IT'S THE NO. 1 WAR JOB OF THE WORLD

You've fought and licked desert, mountains, and searing sun to get water lines from Lake Meade to the plant site. You've straddled the bleak hills with towers and strung them with copper to bring electricity to the job. Yes, there are other big war jobs in the country. But most of the big ones are just plain straight construction, filled with well-known types of machines. This one is the biggest, as well as the most difficult construction in Uncle Sam's whole big drive to win the war.

TO BLAZE A BULLET TRAIL TO JAPS

A gunner in an airplane can't take aim like a squirrel hunter. When he's after a Jap or a Heinie, he's got to SEE where his bullets are going. So every fifth bullet from an airplane machine gun is a tracer--made of magnesium. Our flying gunners need them by the millions.

A BRIDGE THAT DOESN'T GO ANYWHERE

To get these magnesium bullets into the guns you have built a bridge that starts out on an artificial island and goes no place over a man-made lake.

To reach the goal roofers are working in the cellar, and plumbers are working on the roof.

To get those bullets made, painters are daubing themselves with sheep fat and crawling into hot pipes; while elsewhere bricklayers are lading cement from metal hods that stand in tubs of iced water.

IT MEANS HELL FOR ADOLPH, TOO

To make these bullets some of you are operating the world's largest department store--general stores--where in seven months, out of 7,532 railroad cars and thousands of trucks, you've distributed everything from bolts of muslin to 100-ton transformers, and dished out everything from needles and thread to a locomotive.

YOU'LL SPOTLIGHT TARGETS IN TOKIO

You see, when an American bomber swoops down over a blacked out Jap city, he drops a flare so he can see where to "lower the tailgate". Those flares are made of magnesium. Our flyers need tons of them.

The Big Job is anxious not to miss any news of the B.M.I. project. What's unusual or out-of-the-ordinary in your department? Write the Big Job or phone Basic 105.

THE BIG JOB — BASIC MAGNESIUM NEWS-LETTER

DOLLAR A SECOND FOR 32 MONTHS

Suppose you had a clock that ticked out a dollar every second. Wind her up. Every time she ticks, out pops a Nevada cartwheel. It would take her two years and eight months to spit out enough dollars to pay for this plant. Yeah! Uncle Sam really wants magnesium.

THE BRIDGE THAT ISN'T A BRIDGE

That bridge! It's a cantilever. It extends 233 feet out over Lake Meade and stops. The anchor arm, on an island that used to be a mountain, is 153 feet long. It's 60 feet high in the middle. To get material to the island, a causeway of 250,000 cubic yards of rock and dirt fill was built. It's 1,000 feet long. At the end of the bridge is a pump house. The intake for water for Basic will be extended from the pump house down into the lake so deep that it will pump plenty, even in a year of severe draught. Lake Meade's rise and fall is 180 feet in a normal year. The deep well pumps will be submerged 190 feet. The bridge took 1,042 tons of structural steel. There's good fishing from the bridge—cat and carp. Workers drop set lines and catch dinner. Now you tell one.

FAT SHEEP PROTECT PAINTERS

Sheep are helping on this job. The painters will tell you. They've got a job calling for bitumastic paint on the inside of pipes. Fumes from this coal-tar paint raise blisters like grandma's popovers. So, the boys daub their skin with sheep fat before going to work. Three cowpunchers quit.

"HEY BOY! MORE ICE FOR THIS CEMENT"

To the age-old yell for "More Mort", this job has added a new cry from the masons. It's for "More Ice". Those movie-star bathtubs—the 880 electrolytic cells—take some fancy bricklaying. The cement is mixed with iced acid. It goes to the jobs in metal hods, only about two quarts at a time. These hods sit in tubs of ice and water. All because this chemical cement sets like a bride's cake if it gets warm. Same thing is true of the brick-lining job on the big chlorinators. They even wash the hods before each refill.

OVER THE MOUNTAINS TO BMI

Speaking of water. This plant is going to use more than 30,000,000 gallons a day. The job of getting it from the lake to the plant is a honey. From the bridge-end

intake, it will be pumped to a booster station 250 feet higher up. The boosters will hoist it over the mountain and up to the big Basic reservoirs—a lift of 630 feet. The water will pour over the mountain in a 40-inch line, 14 miles long, and weighing 14,500,000 pounds. At high water, capacity at the intake will be 4,400 gallons a minute. Thus the Basic project brings to an arid valley, water, that wise guys said never would arrive.

IN YOUR CUPS--164,000 TIMES A DAY

This job is using a million gallons of water a day right now. You're drinking a lot of that. There are 700 cans in the field serviced by 14 water wagons. On the average you take 164,000 drinks a day. One Monday you took 200,000.

OPEN UP 10,000 KEGS OF NAILS

Nails? General stores has already stocked 10,000 kegs of them. On the job right now you carpenters are driving home 60,000 pounds a day—counting the ones that fly down to the road. But that's o.k., too. McNeil has six trucks, equipped with magnets that run over the roads and pick up the strays. We know two they missed.

TRYING TO MAKE STATION BMI SIGN OFF

This big plant is going to make something besides magnesium. It's going to make harmonics. Harmonics are sour notes. Technical men call them induction disturbances. They are picked up on high tension lines and carried hundreds of miles. Science has licked them on conductors—merely by transposing cables on insulators. But that doesn't keep them from going in the opposite direction on an AC circuit. On the transmission lines from Boulder to L. A. a welding machine 60 miles away made a substation instrument board wail like a Black Maria headed for a train wreck. The Bell people are sending an ace engineer here from New York to see if they can prevent harmonics from back-talking into the telephone system. He is rigging up a complicated filter gadget and thinks it will do the job.

NEW SHIPPING INSTRUCTIONS

Incendiary bombs are made mostly of magnesium. Before long, the product from this plant will spread ruin over the matchbox cities of Japan and set fire to Berlin. So—no matter what you're doing here, here's what you're doing. You're writing some new shipping instructions. They read:

VICTORY—P.O.B., BMI.