
BMI veteran relates history to Rotarians

**By Mary Hubel
Henderson Rotary Club**

"The story of Basic Magnesium Inc. starts before many of you were born or a lot of you remember anything," Tom War told his fellow Henderson Rotarians at a recent meeting.

War is well qualified to talk about BMI, as he came to Henderson to work for the company in 1942.

"The story starts in the late 1930s when we were coming out of the depression and Hitler started his European shenanigans which deteriorated into one 'hellacious' war," he said.

"There was no question where our sympathies lay but we didn't want to get into the fight so we took care of our conscience by becoming the 'Arsenal of democracy' as FDR called it."

War explained the government formed the Defense Plant Corporation (DPC) which built defense plants all over including Great Britain.

"In 1941, Britain gave us their shopping list and on it was an item for a vast amount of magnesium metal ... and we didn't have any," he said.

War said where European used magnesium, we used aluminum. There was just one small plant on the gulf coast run by Dow Chemical that extracted magnesium from sea water.

"But we said, okay, we'll get you your magnesium. DPC went to a firm in England, Magnesium Electron Limited, which made magnesium and then to a small company in Cleveland, Basic Refractories, which made refractory brick and had a deposit of magnasite in Central Nevada," he explained.

War described the project as 'awesome.'

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“They needed the raw material, magnesite, which came with Basic Refractories. The know-how came from Magnesium Electron Ltd.,” he said.

“It took a vast amount of chlorine and there was no access to chlorine capacity in the United States so a chlorine plant had to be built. They needed peat moss but there were no peat bogs in the U.S. but there were some in British Columbia so those had to be developed.”

Without electricity nothing could be done but fortunately the State of Nevada had an unclaimed block of power from Boulder Dam that was available and the necessary water could come from Lake Mead, War said.

“The federal government had plenty of land in the west so all of the things existed but were spread out all over Southern Nevada up to British Columbia. It was the logistics of getting all these things together that determined where the plant would be built,” he said.

These two small companies made up BMI but there was a lack of coordination at the top and in mid 1942 DPC became completely disenchanted with the joint venture and went to Anaconda Copper.

Things straightened up under Anaconda's leadership and in August 1942, the first magnesium metal was poured.

“We made so much magnesium that by mid 1944 we had it stacked up all over the desert so they started to shut down the metal operation but never the chlorine plant,” War said.

War said to his knowledge the chlorine plant has never missed a day of operation.

In early 1945, DPC converted one of the metal units into a plant to make potassium perchlorate which was used by the Navy for jet assist rockets to get planes off short runways and small carriers. The plant was operated by Western Electrochemical Co. and War went to work for them in mid 1945.

“One day in August, we started it up and made 18,000 pounds of potassium perchlorate and that

afternoon Japan surrendered. By the next morning the war effort at the BMI plant was concluded," War said.

He mentioned several interesting sidelights that took place.

Plans for the plant were sent over from England and the ship they came on was torpedoed so an entire second set of plans had to be put together. Then the office building burned down and all the records were lost.

"The process required direct electrical current so they had to change alternating current, the way it was delivered, to D.C.," War said.

"The preferred way was with mercury arc rectifiers and we needed ten but there were only six of the proper size in the country and it would take months to make more," War said.

They never did get enough but solved the problem by using four motor generator sets on the six rectifiers.

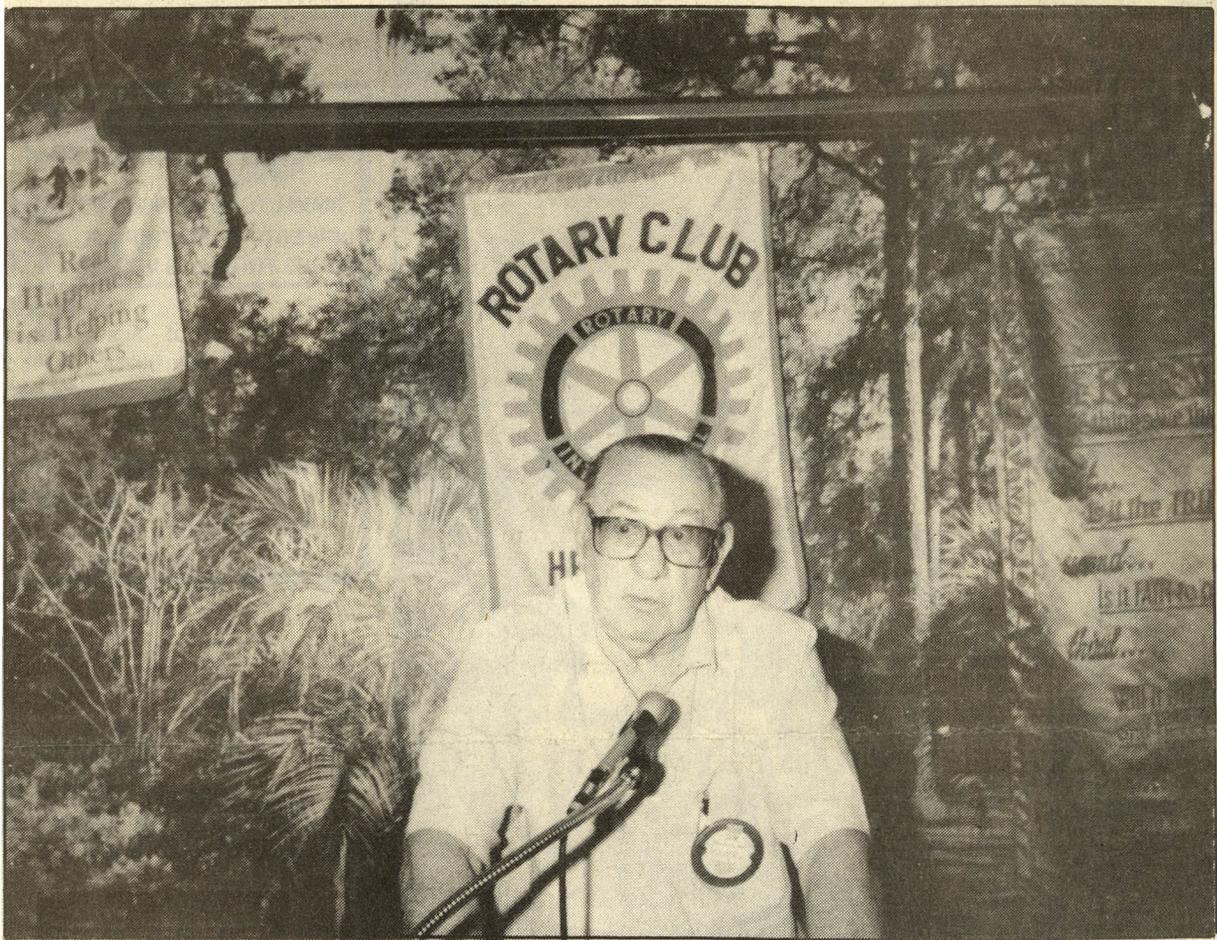
"Did you ever wonder why there are ten buildings in a row that at one time were practically identical?" War asked.

The design for the plant came from Magnesium Electron Ltd. of England, the same design as their plant there.

"We needed ten times that much magnesium and didn't have time to engineer a big plant so they just built that one ten times," he said.

War related that security was amazing. "When we began to think of ourselves as a potential Japanese colony, we got pretty scared. We had to protect our process as we didn't want the enemy to know what we were doing.

"All of the various steps were coded. Confusing as hell. One day it ceased. Someone had realized that the process we were protecting had been procured by the British from the Germans years before," he said.



BMI HISTORY — Tom War speaks to Henderson Rotarians on the history of Basic Magnesium, Inc.

Courtesy photo