Alcoa working toward running at full capacity

Aluminum smelter working with BTC to train potential employees

Isaac Bonnell

On the bluffs of Cherry Point, west of Ferndale, there is a place that never sleeps. For 24 hours a day, the hum of electricity and the glow of molten aluminum fills the long corridors of Alcoa Intalco Works.

Growth of the worldwide economy in the last decade has created a strong demand for this globally traded commodity. Aluminum is needed to build infrastructure, to manufacture cars and airplanes, to make high-tech medical equipment and to package your favorite chilled beverage. In the smelting industry, there is no shortage of customers.

But the smelting industry has other challenges. The first is a shortage of qualified workers. The second is its need for low-cost electricity, which smelters are particularly hungry for.

Industrial jobs around the nation have dwindled slowly over the last decade as industries move overseas, lured by cheaper operating costs. Interest in such careers has similarly declined, said Alcoa plant manager Mike Rousseau, stating that our society tends to push high school graduates toward college rather than technical training.

“We haven’t done a very good job, as a local infrastructure, in growing craft jobs,” Rousseau said.

He hopes to change that.

In September, Alcoa joined with the Washington Job Skills Program to help fund a job training program through Bellingham Technical College. The state-run program granted BTC $60,000, and Alcoa is matching that by paying employees for attending the training.

The program will include customized classes in electromechanical technology that employees may apply toward a degree in industrial maintenance if they choose to continue studying, said Patricia McKeown, vice president of instruction at BTC.

“These positions are much more sophisticated than in the past,” McKeown said, referring to careers in the modern skilled trades industry. “Companies need to update the skills of their employees to stay competitive.”

For Alcoa, this is a chance to invest in their employees and insure that the plant will not be understaffed, said Jodi Read, communications manager for Alcoa.

“We’ve got 15 new apprentices in the industrial millwright and industrial electrician [programs],” Read said. “It’s pretty exciting that we’ve actually been able to restart this apprentice program. We’ve had them in the past; we haven’t had them for a long time.”

Business after the power crisis

For a company with 640 employees — a handful of whom have been there since the smelter was commissioned in 1966 — training another 15 potential employees would hardly seem like a big deal. But for Alcoa, it is a sign that things may be returning to business as usual after several uneasy years.

Operations were shut down in 2001 following the West Coast power crisis. A drought that year led to lower than normal power production from hydroelectric facilities and forced many of the state’s 10 aluminum smelters to close indefinitely until they could acquire enough power to continue operating.

Of those 10, Intalco Works and Wenatchee Works (both owned by Alcoa) were the only two smelters to survive. Intalco reopened in April 2002, but at one-third of its operating potential.

“It was unreal when we were shutdown,” said longtime employee Pat Flaherty, referring to the eerie quiet that filled the plant. Flaherty worked for 17 years casting molten aluminum into solid stock. After the curtailment, he began working for the High Performance Work Organization (HPWO), an intermediary group that works with Alcoa and with the International Association of Machinists union.

When it came time to renegotiate a power agreement with the Bonneville Power Administration (BPA) in 2006, the HPWO played a significant role in rallying employees and community support to write letters and meet with legislators in Olympia.

“The plant’s future was in question,” Read said. “Last year it was really touch and go as to whether we would be operating.”

After months of discussion with the BPA, Alcoa negotiated a contract in October 2006 that secured power until 2011.

“Not only did we manage to secure power to continue to operate, but we secured power in a situation that enabled us to double production,” Read said.
Restarting the second of three potlines meant significant savings for Alcoa in economies of scale. Each potline contains 240 pots in which molten aluminum is charged with an electric current and boiled at temperatures up to 1,500 degrees Fahrenheit. Alcoa is now producing twice as much aluminum, up to 180,000 metric tons per year, for less than twice the operating costs.

Since the announcement last October that the second potline would restart, Alcoa has also added 170 employees to their payroll and expects to hire a few more to fill in for retiring staff members, Read said.

Though the current five-year agreement allowed Alcoa to reopen another potline, it is still merely a short-term fix for their ongoing need for affordable power.

Historically, Alcoa received electricity at cost from the Bonneville Power Administration, meaning the BPA was not making any revenue from the power they supplied to the smelter. But that changed after the power crisis. The BPA eventually decided it could no longer supply power directly to the aluminum industry at such a reduced rate.

“We are having to go out on the open market and buy expensive power,” said plant manager Rousseau. “We get a financial benefit to help offset some of that cost, but it still puts us in a very difficult economic disadvantage compared to other industries in the Northwest.”

The current market rate for power hovers around $60 per megawatt-hour. As per their agreement, the BPA compensates Alcoa with a $12 per megawatt-hour subsidy to help offset that cost, making the effective rate $48 per megawatt-hour.

Since aluminum is a globally traded commodity, the price is fairly standard around the world. The rules of supply and demand have much less effect in this market. The supply of raw materials and the demand for finished product are both high — the pinch is in the smelting process.

“Those that produce that commodity for the lowest cost have a definite financial advantage,” Rousseau said. “If you don’t cover your costs, you’re in trouble.”

Planning for the future

For now, things are running smoothly at Alcoa.

Every month, a ship from Western Australia arrives at their deep-water dock with a load of alumina. Every day, another truck load of aluminum ingots leaves the plant, bound for places such as Oregon, Minnesota or Canada. Every hour, one of the new employees (70 percent of the people on the potlines are new hires) replaces a spent carbon anode in one of the pots.

Rousseau is looking toward the future, though. The year 2011 is looming overhead and Alcoa could once again be without power. To resolve that, Rousseau said he is working on a 20-year contract with the BPA, one that would hopefully provide Alcoa with enough electricity to restart its third potline and run at full capacity.

“We’ll do everything possible to operate our facilities,” Rousseau said. “Every single thing possible.”