CARMEUSE SYSTEMS

CUSTOMER FEATURETTE

Copper Smelting and Refining Facility

Location:
Asia

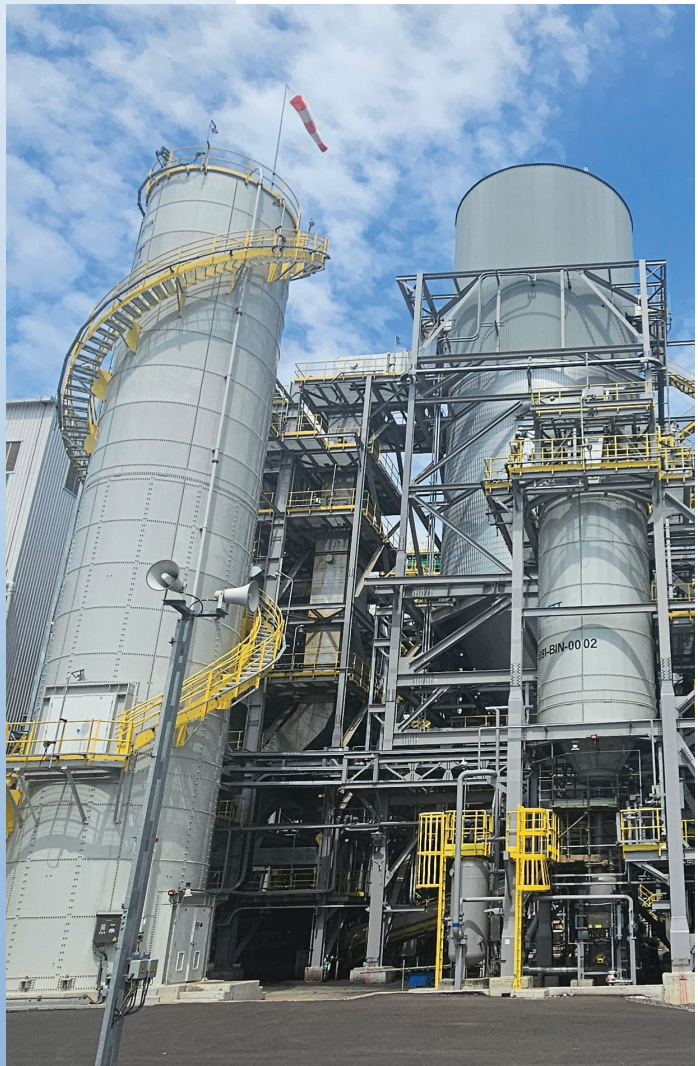
End User:
A large global mining company

Reagent:
Recycled Ash, Limestone, Quicklime, and Hydrated Lime

Carmeuse Systems worked closely with several engineering firms and operators around the world to complete a large copper refinery with government approval in Asia. This facility is estimated to produce over 3 million tons per year of copper concentrate with significant gold and silver by-products as well.

SITUATION

A large copper mine and refinery would be processing and refining millions of tons of copper concentrate annually into copper cathodes and by-products like gold and silver. This was an extremely complex project, and the end-users were looking for strategic partners to help bring this complicated project to fruition. Carmeuse Systems was able to successfully navigate the complexities of this project to design, manage, and commission seven different systems throughout the facility.



FULL OVERVIEW

The scope of this project was quite large and complicated, working with multiple stakeholders including multiple engineering firms in various countries, government regulations, and stringent design specifications and standards. Spanning approximately four years from initial conversations to commissioning, Carmeuse Systems built seven different systems across the facility handling multiple reagents.

CHALLENGES

- **Integrating with Other Design Teams**
  The scale of this project included many different disciplines and stakeholders that were dependent on one another. Throughout the process, there were multiple design changes in other areas which created a lot of room for error without close collaboration and communication.

- **Time Difference and Geographical Barriers**
  Project teams were in Japan, Indonesia, and Canada causing the potential for issues in the timing of meetings, on-site visits, and language differences.

- **Stringent Engineering Requirements**
  The engineering firm kept strict control of engineering and vendor requirements making portions of the project sometimes difficult to complete.

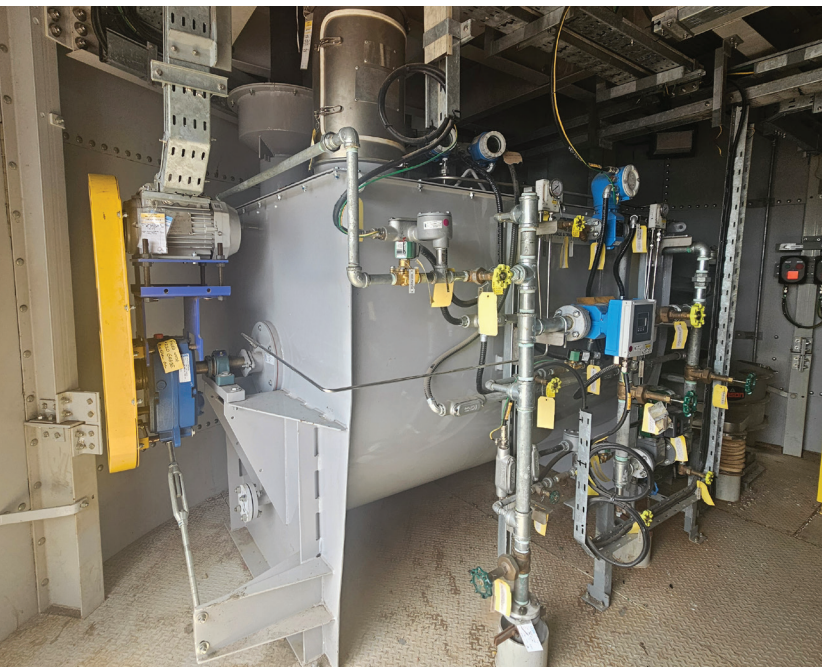
- **Lack of In-Person Meetings**
  A common component of the Carmeuse Systems way of business is to go on-site to collaborate with engineering and operations to understand the project needs and the goals to make this a successful project. However, COVID restrictions made travel and in-person visits impossible. It also made sourcing parts and equipment more difficult.

SOLUTION

Carmeuse Systems adapted the normal "consultative process" to fully understand the customer needs – even having employees routinely work into the wee hours of the night to ensure the highest level of collaboration and communication. The Carmeuse Systems team was able to work with multiple stakeholders, differing opinions, multiple vendors, and detailed specifications in an organized manner. Throughout this process, other vendor and design teams were likely to change, but Carmeuse Systems remained constant in the project, providing historical knowledge and expertise.

In addition to completing this project, unique product offerings were also provided to solve issues as they arose, including the use of bolted silos and tanks which were necessary to navigate space and shipping constraints.

Carmeuse Systems was able to use expertise and a collaborative process to provide high-quality and efficient raw material handling systems to this site. Working closely with several other groups, the team brought confidence to the project that the lime, limestone, and recycled ash components of this facility were going to be installed, commissioned and function efficiently.



CARMEUSE
SYSTEMS

OUTCOMES

Carmeuse Systems was able to complete the design, engineering, and commissioning of seven customized systems throughout the facility.

- 2 recycled ash systems
- 1 hydrate handling system
- 3 quicklime – 1 lime slaking system, 2 dry material handling systems
- 1 limestone handling system

Carmeuse Systems sent multiple members of the Engineering team to the site, spending months supporting installation, commissioning and post commissioning with some members spending four weeks at a time on site offering support. Team members oversaw all aspects of the project, ensuring that components were correctly positioned for installation at various on-site locations. They also supervised the installation process to guarantee that all systems were properly set up for the subsequent commissioning steps.

All seven systems are fully installed and commissioned on site with additional training support being offered to ensure that all operators of the system are aware of how to safely and efficiently use them.