



Woodland, Washington



NEEA Industrial Training Program:
Columbia River Carbonates Case Study

January 2017



NEEA Industrial Training Program: Columbia River Carbonates Case Study

Established in 1985, Columbia River Carbonates (CRC) supplies ground calcium carbonate pigments and products to industries throughout the Pacific Northwest and Canada. CRC has long been a regional leader in sustainability efforts, maintaining an internal program to identify and execute energy conservation projects—for example, developing an innovative waste water treatment system that recycles treated waste water for use in production to eliminate the discharge of process waste water. In 2002, CRC was recognized by the State of Washington and received the Governor's Award for Pollution Prevention and Sustainability Practices. More recently, in 2013, CRC was nominated for Washington State University's prestigious Washington Industrial Energy Leader Award, recognizing their efforts in the field of sustainability.



Attendees work to understand and answer a question posed by the instructor during the morning session.

CRC's involvement in NEEA's Regional Industrial Training Program is a vital component of their internal energy management plan. Trainings encourage participants to easily see potential real world applications for the techniques and equipment modifications discussed in the session, and CRC has implemented several in direct response to completed trainings. Their success demonstrates the significant organizational impact of a few simple changes—a recurring theme of each training.

After completing a pumping optimization training, which covered the basics of pumps, system curves and piping velocities, CRC applied this knowledge to assess their existing pumping system. They were surprised to find that the system was pumping much higher flows than its design supported. Based on what they learned in the training, CRC identified and brought back into service an unused, parallel piping line and were able to significantly reduce the required head and associated pressure losses. As a



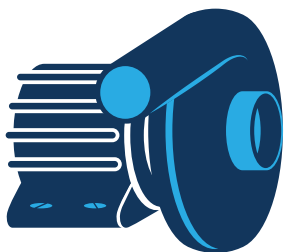
Instructor William C. Livoti shares 40 years of experience in the pump and motor industry with attendees.

result, CRC was able to generate an additional 20 percent flow out of a critical pump with minimal amount of investment.

Similarly, participating in a fan system optimization training allowed CRC's product management team to gain a firm understanding of different fan types, the relative advantages of variable-frequency drives (VFDs) and damper controls, and ducting system operations. Following this session, CRC identified a potential energy reduction project: modifying a production system with four fans, all without VFDs. Instead, they ran on manual dampers set by operators—a fairly inefficient system. After installing VFDs on loop control in each of the fans, CRC expects a 30-50 percent reduction in these fans' energy usage.

“[NEEA’s trainings] are informative and help you understand not only how best to run your equipment but also about equipment selection. A lot of times we use it to make minor modifications in our plant to increase energy efficiency.”

Patrick Sypher, Production Manager



CRC's ability to successfully translate insight into action continues to help them save energy while reducing operational costs. Assessing outdated equipment and making low-impact modifications has also allowed them to operate more efficiently, preparing them for future growth. Increasing organizational energy efficiency doesn't always have to mean major capital expenditures or system overhauls. Often, the real savings begin with the basics—something both CRC and the NEEA Industrial Training Program understand.



Photos of Columbia River Carbonates facility located in Woodland, WA, and quarry in Calder, AK.

19

To learn more about NEEA training opportunities, email us at industrial-training@industrial.neea.org, call **888-720-6823**, or view our event calendar online at neea.org/get-involved/calendar.

NEEA is an alliance of more than 140 Northwest utilities and energy efficiency organizations working to accelerate the innovation and adoption of energy-efficient products, services and practices in the Northwest.