

Energy Plant Avoids Millions in Fines With Mobile Water Treatment

Bridge Solution to Process 2.8 Million Gallons of Water Deployed Within Weeks

Location

Western United States

Owner

Power Utility Company

Problem

A major utility company faced a hard deadline to meet new federal and state edicts. The directive: Stop using evaporation ponds and address more stringent water-quality regulations at its coal-fired power plant. Committed to compliance, the company began evaluating processes to help them meet the 2021 requirements.

If the company failed to comply, fines would be levied and its power plant could be shut down. In response, the plant would have to incur tens of millions of dollars in monthly costs from purchasing electricity on the open market. It also faced potential complications as it looked to decommission the plant and move operations to a more modern facility.

Understanding the complexities involved, our solutions team built a short-term alternative to address the immediate need and ensure compliance while the full-scale deployment was in progress.

Solution

With the contract in place, WesTech began implementation of the bridge solution, which included full system design, layout, controls, and 56 truckloads of equipment. As the equipment was delivered, WesTech held daily meetings with the customer and the customer's construction teams to discuss plant layout, building, and all other project details to ensure an expedited setup.



Power plant in the Western USA



Mobile units were deployed for the project as a bridge solution.

Results

Within eight weeks, the bridge solution was in place to handle variable flows throughout each day. This solution enabled the plant to send scrubber stack discharge and blowdown water to the WestTech bridge equipment for water treatment.

The bridge solution included initial separation of large particles through screen shakers, 16 mobile clarifiers, bag filters, and ancillary equipment such as pumps, chemical feed systems, piping/hosing, and asplitter manifold. The entire project was designed and delivered in under two months. It processed 2.8 million gallons per day for a total of more than 500 million gallons over a period of six months.

At the end of the six-month term, two RapiSand units replaced the temporary bridge solution.

WestTech's strong reputation, along with its engineering and process expertise, enabled the company to meet the deadline and avoid tens of millions of dollars in additional costs and fines.

Even though the project was competitively bid, WestTech was not the low bid for the project. The customer's decision involved much more than the cost. WestTech was awarded this project based on the value and ability to step up and deliver. In under eight weeks, WestTech team achieved the impossible and continues to work closely with the customer to meet new, evolving requirements today.

Highlights

- Delivered a 2.8 MGD bridge solution within 8 weeks
- Averted plant shutdown, potentially saving hundreds of millions over a 6-month period
- Partnered with customer on efficient plant layout, construction, and timely setup
- Enabled customer to achieve regulatory compliance

Solutions Summary

- Process Engineering
- Systems and Operations
- Design Build
- Mobile Clarification - RapiSand



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