From Water to Watts

How Kurita Brings Advanced Fluids Expertise to U.S. Geothermal Projects

Kurita, a global leader in water and process treatment solutions, is expanding its U.S. presence with a focus on one of the most exacting industrial environments for water: geothermal power. By combining over 75 years of global expertise with new North American infrastructure, Kurita America is helping geothermal operators extend plant life, protect assets, and meet environmental standards while maximizing output.

Global Legacy, Geothermtal Future

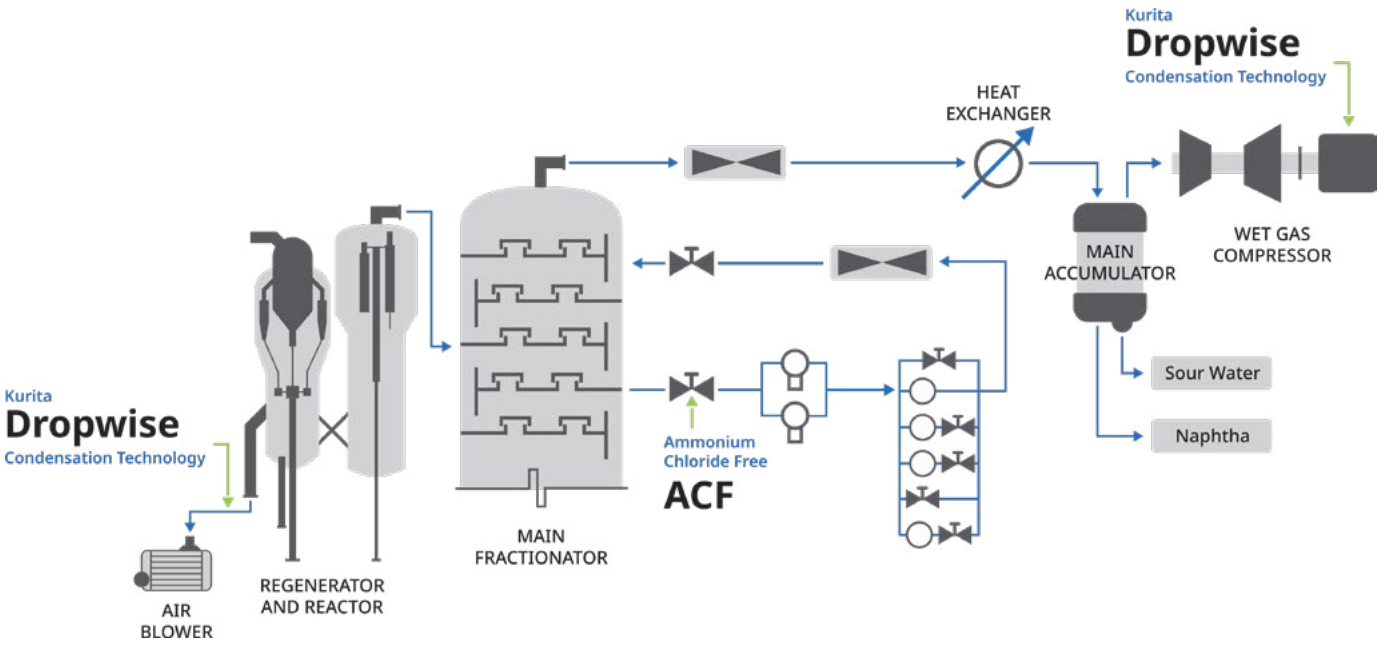
Founded in 1949, Kurita built its reputation on solving complex industrial water challenges across Asia and Europe. In the geothermal sector, this expertise translates into managing high-temperature brines, controlling silica scaling, and mitigating corrosion in wells, heat exchangers, and turbines.

After establishing a U.S. foothold over the past 30+ years through strategic acquisitions–including U.S. Water, Fremont Industries, and Avista Technologies–Kurita America now offers nationwide coverage, bringing deep geothermal chemistry know-how to plant operators in California, Nevada, Utah, Oregon, and Hawaii.

Solving the Fluids Challenges of Geothermal Plants

Unlike most industrial water systems, geothermal plants handle fluids drawn from deep underground reservoirs at extreme temperatures, often exceeding 200°C, and high concentrates of dissolved minerals like silica, calcium, and iron. Left untreated, these fluids can deposit silica scale in pipes and turbines, corrode steel casings, or trigger costly shutdowns for cleaning and repairs, which greatly reduce plant efficiency. Kurita's geothermal treatment programs address each stage of the process, from production wells to reinjection, using advanced chemical formulations, continuous monitoring, and predictive modeling. These solutions reduce unplanned outages, sustain optimal flow rates, and protect capital-intensive equipment.

A case study from Asia showed Kurita's silica-control program extending the cleaning cycle of a geothermal flash plant from every six months to every two years. This saves millions, along with avoiding unwanted downtime.



Treatment integration points in a typical geothermal plant, preventing scaling, corrosion, and downtime.

U.S. Presence and Strategic Partnerships

Kurita's acquisitions were more than market moves—they created a nationwide service and distribution network capable of reaching geothermal plants quickly. Partnering with operators, Kurita provides on-site technical support, lab analysis, and tailored treatment plans, ensuring each facility's chemistry management matches its unique reservoir conditions.

Looking Ahead

Kurita sees U.S. geothermal as a growth sector aligned with both decarbonization goals and its own environmental commitments. The company is exploring advanced brine reinjection treatments, closed-loop resource management to support future geothermal expansions, and zero-liquid-discharge systems, which will be a game changer for water-scarce regions where every liter must be accounted for.

High Tech Meets High-Temp: Innovation for Geothermal Operations

Geothermal operations benefit from Kurita's investments in IoT and AI-driven monitoring systems. These platforms integrate with plant SCADA networks to track scaling potential, corrosion rates, and fluid chemistry in real time. Operators can adjust treatment dosages before issues arise, maintaining steady power output and extending asset lifecycles.

Takeaway for the Geothermal Community

For Geothermal Rising members, Kurita's U.S. expansion means access to a global R&D network, rapid response field service, and proven solutions for one of the most challenging fluids environments in energy production. By optimizing chemistry management, Kurita helps operators focus on what they do best—delivering clean, reliable baseload power.