LAKOS

case study

LAKOS Separators Reduce HVAC Maintenance Costs While Saving Energy and Water

University of Nevada, Reno

System:	Cooling Towers for HVAC Systems on the University Campus
Solids:	Sand, Silt, Scale, Rust
Liquid:	Cooling Tower Water at 280 gpm (64 m^3/hr)
Problem/Challenge:	Keep Cooling Towers Clean with Limited Manpower Resources
Solution:	LAKOS Separators in Basin Sweeping and Side-Stream Systems

Problem: As with many schools and universities across the United States, the University of Nevada, Reno has experienced budget cut-backs and reductions to their facilities service departments. Although this is the result of a temporary downturn in the economy, the school still needs to meet the operational requirements of educating almost 17,000 students.

LAKOS TCX-0280-ABV basin sweeping filtration unit installed at the Mathewson - IGT Knowledge Center at UNR

The UNR Facilities teams have busy schedules to meet their heavy workload, and are constantly looking for ways to do "more" with "less". Preventive maintenance procedures and schedules are one way they keep operations running smoothly.

Solution: Jim Marshall is the University Environmental Services Supervisor and is responsible for the campus HVAC systems. LAKOS Separators play an important role in keeping the systems free of troublesome particulate fouling in the cooling towers of several buildings. While effective filtration typically carries significant payback in terms of energy, water and chemical savings, the University has also found the installation of LAKOS Separators generates substantial return on investment in labor and maintenance savings as well.

"I will always go with the technology that takes the place of manpower" says Marshall, while pointing

(Continued on reverse)

Above: Cooling Tower at UNR Mathewson - IGT Knowledge Center at UNR

a LAKOS TCX-0280-ABV basin sweeping unit installed at the Mathewson - IGT Knowledge Center on campus. "LAKOS is my attendant down there!"

Other installations on campus include:

- A LAKOS SPX-0145-SRV installed as a side-stream unit at the Joe Crowley Student Union
- A LAKOS TCI-0145 basin sweeping unit at the Davidson-Math and Science Building, and
- A LAKOS TCI-0280-CMBV basin sweeping unit installed on the Molecular Medicine Building

"There is a clear and concise difference between the cooling tower systems that incorporate LAKOS as a filter versus the cooling towers that do not," says Marshall.

Along with keeping maintenance costs down, LAKOS Separators provide other benefits for the UNR's cooling towers. Cooling tower sumps are natural air washers, and the sedimentation and debris build-up in these towers can lead to Legionella growth and other water-borne pathogens. By removing the sediment, LAKOS allows corrosion inhibitors and biocides to perform as they were designed.

Left: LAKOS SPX-0145-SRV as a side-stream filtration unit on the Joe Crowley Student Union at UNR

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