Global automotive manufacturer saves millions by leveraging a Total Water Management approach

NALCO Water
An Ecolab Company

CASE STUDY – AUTOMOTIVE
CH-2039

SITUATION

A major international automotive manufacturer was looking for a partner to manage all utility, process, and wastewater systems in one of its facilities. The goal? To optimize paint detackification and industrial wastewater operations while also reducing overall costs and achieving its corporate sustainability goals.

The customer established the following criteria for success:

- Provide superior performance while reducing Total Cost of Operations
- Enable increased focus on core manufacturing capabilities
- Reduce water (m^3/vehicle) and sludge volume (Kg/vehicle)
- Establish process monitoring and control methodology, and demonstrate results against established KPIs
- Integrate with operations standards
- Meet corporate sustainability goals

CUSTOMER IMPACT	eROI℠	ECONOMIC SAVINGS
Cost reductions for paint detackification annuity program. Paint savings from spray optimization Reduced paint and chemical usage, waste volume and cleaning frequency	COSTS	Reduced annual Total Cost of Operations by $3.2 million through program optimization
Reduced paint sludge volume by 7 lb/unit Diverted all paint sludge waste from landfill	WASTE	Achieved approximately $63K savings on industrial waste treatment chemistry and sludge Reduced industrial waste volume by 28%.
Documented water savings from 3D TRASAR implementation on cooling towers	WATER	Reduced total water consumption by 264K m_3

eROI is our exponential value: the combined outcomes of improved performance, operational efficiency and sustainable impact delivered through our services and programs.

SOLUTION

Nalco Water, taking a holistic Total Water Management approach, delivered a comprehensive solution for the industrial wastewater system, central utilities plant, paint detackification plant, and high-purity water production. The proposal included another key offering: Nalco Water would manage all water-related operations throughout the facility, relieving the customer of this responsibility.

The scope of the project was both broad and comprehensive:

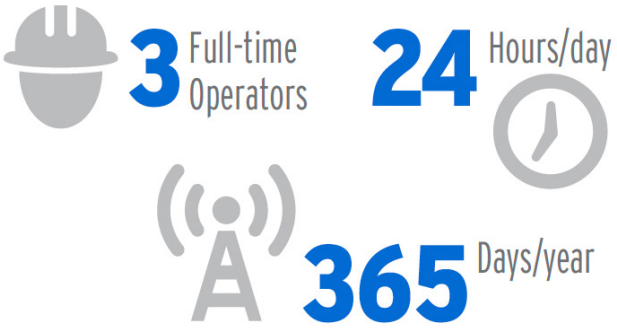
- 24/7/365 operation and maintenance of all plant water systems
- On-site personnel – including a site manager, utilities supervisor, paint supervisor, five utilities operators and nine paint technicians
- Design engineering
- New paint-removal equipment installation, start-up and operation
- Water treatment chemicals and programs
- Chemical feed and control equipment
- Nalco Water's 3D TRASAR™ Technology

RESULTS

The solutions resulted in a $3.2 million reduction in overall costs, a 6.3 percent decrease in water consumption and achievement of a major sustainability goal – diverting all of the plant's paint sludge waste from landfill. In addition:

- Sludge quality and management exceeded expectations
- Operational efficiencies were increased as compared with the prior system
- Paint and chemical usage were greatly reduced

Nalco Water's successful management of the plant's operations along with the implementation of proprietary solutions and technologies established Nalco Water as a long-term partner, and not only for this facility. Nalco Water has since received managed operations contracts for five additional locations worldwide.



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