

CASE STUDY | Efficient Wastewater Solutions for Aerospace Manufacturing

Taking bigger steps...
to leave a smaller footprint

System overhaul transformed the manufacturer's wastewater operations into a sustainable, cost-effective system that supports uninterrupted production and aligns with future needs.



Indianapolis, IN



See our web site for more details
www.macdermidenvio.com



An Element Solutions Inc. company

FLOW RATES

DI System	Continuous Flow	Batch Treatment
87,000 gallons / day	36,000 gallons / day	87,000 gallons / day

CHALLENGES

A Southern California aerospace supplier for Boeing faced operational challenges due to a 25-year-old wastewater treatment system. Outdated technology, corrosion, and stricter discharge regulations made it increasingly difficult to meet compliance while maintaining efficiency. The aging system also struggled with water shortages and ineffective removal of cadmium cyanide, a common aerospace contaminant.

With new regulations and mounting inefficiencies, the manufacturer needed a comprehensive solution.

THE MACDERMID ENVIO SOLUTION

After a detailed assessment, MacDermid Envio recommended a complete wastewater system overhaul instead of partial upgrades. Key improvements included:

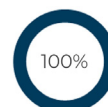
- Advanced Automation: Enhanced controls for recipe-based batch treatment of concentrated wastes
- Ion Exchange Technology: Improved removal of dissolved metals, including cadmium cyanide
- Water Recycling: Technology to reduce dependence on municipal water supplies, addressing regional water shortages
- Future-Proof Design: A flexible system capable of adapting to evolving regulations and operational needs

MacDermid Envio's decades of aerospace expertise ensured the system met compliance standards while boosting efficiency.

RESULTS

The new wastewater treatment system delivered:

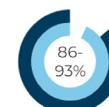
- Regulatory Compliance: Meeting all POTW discharge limits
- Water Savings: Reduced reliance on city water through recycling
- Cost Reductions: Lower operating costs with streamlined processes
- Ongoing Support: Remote monitoring and timely delivery of essential chemicals



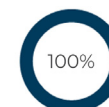
Cyanide Removal



Metals Removal



Recycle & Reuse



Hex Chrome Removal

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