



MARKET: Manufacturing
SOLUTION: Lighting Retrofit

CASE STUDY:

Servidyne Brightens Battery Manufacturer Outlook with Lighting Retrofit

The Challenge:

One of the world's largest producers and recyclers of lead-acid batteries contracted with Servidyne to retrofit the lighting system in their transportation distribution center located in California. The lighting system in this 28,000 square-foot facility had not been significantly improved since construction of the building in 1971. Lights in the office areas were inefficient fixtures containing T12 lamps and magnetic ballasts. The age of these fixtures meant light levels were severely diminished. Additionally, metal halide high-bay fixtures in high-ceiling industrial areas produced inadequate light levels for these areas while consuming large amounts of power. Servidyne's lighting experts engineered a lighting system for this facility with three goals in mind: to increase light levels throughout the building, to save energy by reducing wattage and operating hours, and to remove toxic PCB ballasts in old fixtures.

More about the Manufacturer

- One of the world's largest manufacturers and recyclers of batteries
- 28,000 square foot facility
- No building construction improvements made since early 1970s
- Safety related challenges due to airborne lead
- Project completed in 2 weeks
- Project costs recouped in just over one year
- Lighting retrofit immediately cut energy costs, raised light levels, improved color rendering and standardized lamp stock for future replacements



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While the project involved retrofitting lighting fixtures, the battery manufacturing facility presented numerous challenges to Servidyne work crews, primarily safety-related issues. The presence of airborne lead, a byproduct of lead-acid battery manufacture, meant all crew members were required to wear P100 respirators while working in the industrial areas. The existing magnetic ballasts contained toxic polychlorinated biphenyl (PCB), which had to be carefully removed and isolated for hazardous materials pickup.

The Solution:

Despite these challenges, Servidyne's upgrades actually raised light levels, improved color rendering and standardized lamp stock for future replacements. The 400-watt metal halide fixtures in the industrial areas were replaced with 8-foot fixtures containing six 4-foot lamps and high output electronic ballasts.

This lighting upgrade project cut power consumption in half while improving light spread and providing instant start capabilities. Power consumption was also reduced in the parking lot areas by replacing existing 250-watt high pressure sodium fixtures with 175-watt metal halide fixtures, each with an integral photocell to reduce operating hours. Occupancy sensors were installed in all possible applications to reduce operating hours of lighting fixtures. Sensors were installed directly on all 6-lamp T8 fixtures in industrial areas, allowing energy to be conserved in areas not in use, but enabling light to become instantly available when use resumes.

The economic benefits have been outstanding. The comprehensive solution from Servidyne enabled the project to be completed in less than two weeks, allowing the customer to benefit from savings quickly. Energy savings have allowed the firm to recoup project costs in just over one year. If that wasn't enough, Servidyne even secured the customer a rebate from Southern California Edison for the improvement, covering more than half of the project cost.

About Servidyne:

Established in 1925 and operating nationwide and internationally, Servidyne provides comprehensive energy efficiency solutions, sustainability programs, and other building performance enhancing products and services to building owners and operators, and engages in commercial real estate investment and development. The Company's building performance products and services enable customers to optimize the short-term and long-term financial performance of their building portfolios, while reducing their carbon footprints and improving the comfort and satisfaction of their buildings' occupants. These offerings include comprehensive sustainability programs, energy engineering and energy management analytical consulting services, turnkey implementation of energy savings and other infrastructure upgrade and retrofit projects, and proprietary Web/wireless preventive maintenance and service request systems with integrated utility and maintenance reporting. The Company also owns or controls shopping centers in the Midwest and Southeast and office properties in metropolitan Atlanta, Georgia. For more information about Servidyne, please visit www.servidyne.com or call 770-933-4200.

