PPL Generation Upgrades to a Vigilant® Strobe

As part of its ongoing commitment to improving operational efficiency and reducing environmental impact, PPL Generation continually strives to reduce costs and lower internal energy consumption by implementing high-efficiency, modern technologies throughout its facilities.

At its 1,700-megawatt Martins Creek Power Plant north of Easton, PA, the company recently replaced the antiquated Xenon obstruction lighting system on the facility's two exhaust stacks with state-of-the-art 270,000-candela LED high-intensity strobe systems from Dialight, the industry leader in LED obstruction lighting technology. The retrofit will reduce PPL Generation's maintenance and energy costs.

The Challenge

Constructed in 1974, the Martins Creek facility consists of two oil/natural gas-fired units with a generation capacity of 850 megawatts each. Twin 600-foot ventilation stacks tower over the facility and its surrounding neighbors, each signaled by the requisite FAA obstruction lighting system.

The existing systems, comprised of two sets of three Xenon strobes positioned at 296 and 586 feet, had been in place more than 30 years, since the plant first came online. Annual bulb replacements were becoming a significant financial drain in both supply and manpower costs. In 2010 alone, the Martins Creek plant had to replace 10 out of 12 lamps. The year before, the plant replaced all 12 lamps.

The Solution

Recognizing the need to upgrade, PPL worked with its electrical and lighting contractor, Fuellgraf Chimney & Tower, to specify a new high-efficiency LED system.

Based on the highly successful installation of Dialight's high-efficiency LEDs at the adjacent Lower Mount Bethel Energy power plant, Fuellgraf replaced both of the outdated Xenon systems at the Martins Creek plant with Dialight's L864/L865 dual LED obstruction fixtures. Backed by a five-year full-performance warranty and highly durable shock and vibration resistance, the Dialight system had already proven to deliver reliable, long-lasting performance and exceptional energy savings.

"Considering the energy efficiency and reduced maintenance cost of the LEDs, it adds up to substantial savings, making it an easy decision for our customers when it comes to upgrading their outdated xenon systems," said Joe Geiger, Fuellgraf Chimney & Tower.

The Results

Outfitted with custom-built controllers and neighborhood-friendly optics to reduce ground scatter, the new Dialight units were installed in about a week per stack by Fuellgraf's team.

Consuming just 250 W during the day and only 10 W at night, compared to the Xenon's 500-W daytime operation and 300 W at night, the Dialight system uses significantly less electricity than the Xenon system. But, the most immediate direct benefit of the retrofit will be the dramatic reduction in recurring maintenance costs. With Dialight's proven product longevity that reduces system maintenance, PPL Generation will continue to save for years to come.

For more information, please visit www.dialight.com *[1].*

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