

HIGH PERFORMANCE NEWS

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BIRNS Intern Program Wins Workforce Investment Board Award



Our company recently received a Youth Opportunity Award for providing internships and employment opportunities that help grow and strengthen Ventura County's future workforce. BIRNS has provided hands-on marketing internships for local college students since 2009, and our interns participate in top-level meetings and work with the company's marketing department on social media outreach, newsletter content and sales and

Brilliant BIRNS Dual Kelvin™ Does Double Duty



The 30,000 lumen BIRNS Dual Kelvin™ is an incredibly durable and dependable fuel pool lighting fixture used worldwide for long-term illumination of fuel pools and transfer canals, reactor cavity illumination during fuel movement and other large-scale activities. Its rugged, all stainless steel "inside-containment" construction and custom engineering makes it brilliant, easily decontaminated, and relampable tool-free in 60 seconds. It can be seamlessly tailored to a wide range of applications, with a choice of wide, medium or narrow beam lamps. Its lamp protector is Lexan polycarbonate, the most impact-resistant of all thermoplastics—more than 30 times the impact resistance of safety glass. This proven system provides more than 300% the radiation tolerance of acrylic.

The BIRNS Dual Kelvin includes two Model 5801 BIRNS Kelvin lights (with choice of beam angle), a 1.5m stainless steel mounting pole, and a dual power cable assembly, with a standard length: 15m from top of pole, and custom lengths of pole and cable made to spec. This dynamic duo provides 4,000-hour-rated lamps, operating at 120V/1,000W for one easy to use, lightweight unit with no ballast necessary.

Seismically qualified per IEEE-344, the system features free-flooding housing for high-efficiency water cooling, making it trusted in power stations across the globe for underwater use in areas with high levels of radiation and nuclear contamination.

Shedding A Little Light On the Subject

The Advantages of Underwater HPSV and Halogen Lighting for Nuclear Applications

We've been creating high performance lighting solutions for the subsea and nuclear markets for more than half a century, and as such, have helped shape the face of technology in this exciting market. In demanding nuclear applications, utilizing safe and powerful underwater lighting sources can mean the difference between long versus short outages, effective fuel movement versus wasted effort, and most importantly, additional hazards versus enhanced safety in work environments inside containment.

marketing materials.

"We created this internship program to provide hands-on training and education, so that each intern would leave with a portfolio of completed work," says Birns. "I think most successful professionals, myself included, can remember clearly the commitment and effort of those people who took the time to provide coaching and education in our own early career paths, and the impact that had on us."

The company accepts two interns each year for at least a three-month commitment. "We have been fortunate to have chosen excellent interns who not only worked diligently while they were with us, but have gone on to successful careers," says Birns. "I think it's our responsibility as business owners to invest in the futures of these local, driven young people, and provide the most advanced training possible during their tenure with us. Bottom line: internships help create excellent candidates—whether in our company or someone else's."



Currently, the safest, most dependable and powerful underwater lighting options for everything from Fuel Pool lights and Reactor Core Refueling lights to Underwater Camera lights are High Pressure Sodium Vapor (HPSV) or tungsten halogen. While there are inroads being made in the research and development of LED options, even high powered LED lighting systems can't compete with the 130,000 lumen output of the 1kW BIRNS Corona™ (HPSV), for instance—especially when you're entrusting the lighting to safely and efficiently support fuel movement or other large scale activities.

Plus, there's the concern about how LED technology, which is still relatively new, will perform in contact with fuel, and what exponential increases in radwaste will emerge in implementing LED systems without thorough and lengthy testing. LED's have limited temperature tolerance and falling efficiency as component temperature rises. This limits the total LED power that can practically be fitted into lamps—thermal management of high-power LEDs is a significant issue. Further, long-term LED performance data do not yet exist, and there is legitimate apprehension that radiation-induced discoloration of LED glass might cause significant lighting attenuation.

We've been making lights for nearly 60 years that are trusted in the planet's most extreme environments, and we're always excited about developing new technologies. We look forward to what the future will bring, but feel that the jury is still out on the efficiency and performance of LEDs in the delicate systems of underwater nuclear power applications.



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