

# Customer Testimonial



## Wirelife® Low Tox® Penetrating Lubricant (2011)

### South Carolina State Ports Authority

### Heavy Lift Cranes

- Protects crane cables from rust, corrosion and wear
- Prevents build-up on cable to ensure easy inspection
- Lessens environmental impact in aquatic environments

#### Customer Profile

The South Carolina State Ports Authority (SCSPA) owns and operates marine terminals in Charleston and Georgetown. These port facilities are part of the vital international trade infrastructure of the U.S. Known for high productivity, South Carolina ports provide efficient access to global markets for American exporters and a secure supply chain for imported goods. The SCSPA is proud of its role in keeping America competitive and secure.

#### Application & Background

The SCSPA uses heavy lift cranes to load and off-load ships. In 1995, the Charleston Port's Heavy Lift Maintenance Department wanted to implement a safer and more economical way to maintain their wire ropes on the heavy lift dock cranes. The previous method was applying a messy lube onto the cable by hand, using a lube mitt. This was time-consuming and ineffective. Helmut von Schweinitz, LE lubrication consultant, designed an automatic lubrication system for the SCSPA.

They also asked LE for a lubricant that could provide corrosion control and wear protection, yet still be able to penetrate to the core of the cable. The lubricant must not drip or sling off during operation, and it must not build up on the cables and interfere with proper cable inspection. Finally, it needed to have the lowest possible aquatic toxicity, to lessen any environmental impact.

Helmut von Schweinitz recommended LE's Wirelife Monolec® Penetrating Lubricant (2001). The customer used the new lubricant and automatic lubrication system



*More than just biodegradability, of utmost concern is the toxic effect on the environment of a lubricant during the time that biodegradation is taking place. LE's Low Tox oils are less toxic to the environment than any other wire rope, hydraulic or turbine lubricant on the market today – conventional or biodegradable – as shown by the Microtox® Luminescent Bacteria Bioassay Test.*

with great success for the next 12 years. The improved performance eliminated hundreds of labor hours – a labor cost reduction of more than 50 percent.

#### Challenge & Solution

In 2007, LE challenged itself to make a better eco-friendly product for SCSPA that kept the same qualities needed before, but with improved cable penetration, less build-up and better protection of the aquatic environment in which the cranes operated. That summer, LE introduced Wirelife Low Tox Penetrating Lubricant (2011) for use in SCSPA's four new heavy lift cranes. These cranes are larger and faster and have faster cables than the older cranes, so lubricant performance was of utmost concern to SCSPA.



### Results

Since its introduction at SCSPA, LE's Wirelife Low Tox Penetrating Lubricant has exceeded or met all of its performance requirements.

Highlights of the new product's performance include:

- 30 percent less consumption of lubricant
- No build-up, ensuring easy inspection of cables for broken strands
- Protection of cables from wear, corrosion and rust
- Less toxic effect on the environment during the biodegradation of the lubricant

### Other LE Products Used:

- Duolec® Vari-Purpose Gear Lubricant (1605)
- L-X® Heavy Duty Chemical Supplement (2300)
- Nutrigent Industrial Cleaner (2100)
- Pyroshield® Open Gear Lubricant (5180)

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*Thank you to SCSPA and Helmut von Schweinitz, LE lubrication consultant (pictured), for providing the information used in this report.*

