

Aix-en-Provence, 18th of March 2014

Cyalume emphasizes its successes in the European Railway Industry: Increased safety and better risk reduction for Infrastructure Maintenance Workers, Asset Protection and Passenger Comfort

Cyalume Technologies SAS, the French subsidiary of Cyalume Technologies Inc., has been the world leader in chemical light solutions for more than 40 years. Reducing the risks in both emergency situations and in working conditions on site are at the heart of all Railway companies' safety strategies.

Cyalume[®] has been working closely with the Railway Industry in France and England to implement safety and emergency protocols in order to reduce the risks of slips, trips and falls for both maintenance workers and passenger safety, and has developed specific products for the identification of personnel, hazards, trackside equipment as well as in rail stations and rail carriages.

Cyalume[®] Lightsticks installed in Rail Passenger Carriages

Cyalume[®] developed the LightStation[®], an evacuation solution to improve on the existing S.E.E.[®] System Boxes widely fitted in UK Rail vehicles. Today our LightStation[®] can be found in the Heathrow Express, Gatwick Express and a number of other Train Operating Companies' carriages. In a single product, the LightStation[®] offers:

- Instant illumination of carriages and exits,
- Portable evacuation light for passengers,
- High degree of visibility of evacuees to arriving rescue teams.

Easy to locate in the dark with its photoluminescent label, the LightStation[®] provides crews and passengers with comfort and assurance that safe light will be available should any emergency occur.

Built in fire and blast resistant metal, the LightStation[®] can be installed in both underground and overground trains. Available models hold 4, 10 or 20, 10 inch batons. Upon opening, each baton automatically activates (only 1 in the model 20), providing 360° of illumination to "see and be seen".



This helps Rail companies reduce risks in emergency situations.

Many rail passenger carriages in the UK are already fitted with these devices in order to maintain passenger safety in case of emergency situations at night or for tunnel evacuation.

This safety measure will soon be followed by other major European Rail companies, such as SNCF in France where trials are planned in March 2014. The SNCF, National Society of French Railways, has been working closely with its Health and Safety specialists and the Firefighters Brigade. Realistic tests in tunnels at night where a high-speed train will catch fire, suffer a power breakdown and involve passenger evacuation will be conducted. Cyalume® products will be used as personal markers, route progress lighting, and tested for assisting with panic avoidance amongst evacuating passengers.

Passenger safety is a key objective of all Railway companies that Cyalume Technologies is helping to achieve.

Cyalume® Lightsticks used on Railway Worksites during the hours of darkness

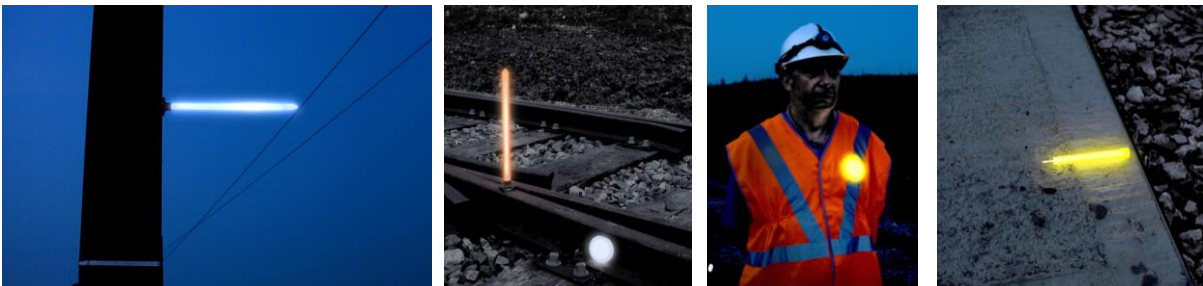
Increasing worker safety and productivity is one of the major objectives that Network Rail, which owns and operates the UK Rail Infrastructure, is constantly asking its maintenance sub-contractors to achieve.

Safety is at the heart of sub-contractors' concerns, and is encouraged by the ORR (Office of Rail Regulation) which is the National Health and Safety authority for Britain's Railways. Much of the maintenance work on infrastructures is done at night to minimize traffic disruption.

In that context, Cyalume Technologies worked closely with Network Rail HSEA specialists in order to select and approve a complete range of Cyalume® chemical light devices for use on the track worksites.

The complete range of Cyalume SnapLight® lightsticks and LightShape® circles can be applied in a number of ways:

- **Possession Zone Marking:** identifying limits of Isolation and Overhead Lines, identifying Points on Site, highlighting the boundary between Green and Red Zones,
- **Equipment & Hazard Identification:** highlighting of Drains, Culverts and Catch Pits, highlighting of Cables and Earth Bonds, highlighting of Axle Counters and Ground Signals,
- **Personnel Identification:** highlighting of First Aiders, of MAD Coaches, of Engineering Supervisors and of Machines and Crane Controllers.



The use of safety lights on tracksides across the UK network has tangible benefits such as a decrease in the number of incidents (cable strikes, reduction of slips, trips and falls), enhancement of staff morale and increasing productivity...

Today, these lightsticks provide a guaranteed 12 hours of light, resulting in improved safety for workers and making it easier to locate cables. Previously cables had been marked only by the use of spray paint, which is not visible at night.

Additionally, Cyalume® lightsticks also serve as an alternative to traditional Rail Yard lighting towers, usually powered by generators. With Cyalume® SnapLight® products, the noise and fumes from generators can be completely eliminated. This leads to a significant reduction in carbon dioxide emissions. Reducing the use of generators also yields substantial savings by reducing the consumption of diesel fuel.

This joint work effort led to the improvement of safety for Rail Yard workers and to the deployment of Cyalume® products by the various British subcontractors.

On the other side of the Channel, the HSE specialists of the SNCF (French National Railway Company) worked with Cyalume® to introduce chemiluminescent products on Railway Worksites to improve safety of maintenance workers at night.

Trials organized with an internal working group were very successful. The efficiency of Cyalume® products in the Railway area was quickly highlighted. They are easy to use, can be handled without risk to health or the environment and contribute to improve working conditions.

Following those trials, rules for the use of Cyalume products were adopted for Railway working sites at night on the French Infrastructure Network.

The orange 6" SnapLight® 12-hour lightstick as well as the S.O.S.® Green 8-hour are already in use among SNCF worksites.

To highlight safe access ways to worksites and avoid slips, trips and falls, orange 6" SnapLight® lightsticks can be easily used to mark an obstacle, to light passages or even in dense vegetation... As in the UK, the use of generators that need periodic maintenance and refuelling is also avoided.

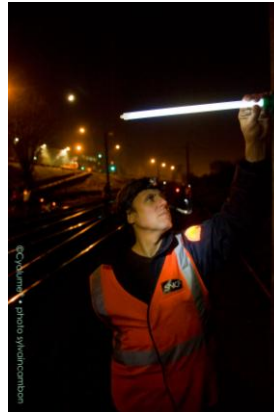
S.O.S.® green 8-hour signalling device are also used in conjunction with 200 mobile defibrillators present on worksites. They can be used in case of emergency at night to signal urgent need for evacuation.

All these applications are now in use among many Infrastructure Worksites throughout France and offer the following advantages:

- The slip, trip and fall-related accidents have decreased significantly. Cyalume® lightsticks are light-weight products, easy to transport and to use, and help reduce the impact on the environment (environmentally friendly, no noise and do not require batteries).
- Their 12-hour duration time covers a full night-time maintenance work shift.
- They also provide a better response to regulations and safety requirements for all infrastructure workers.

Other products can also be applied for additional applications such as:

- **Catenary Identification:** 15" SnapLight® Blue 8-hour. Blue colour lightsticks can be used for "**Overhead Lines**" application. While working on Overhead Lines, workers used to highlight the electrical connections with a triangular blue flag to identify the worksite limit. Blue 15" SnapLight® lightsticks can allow an easier identification of those areas at night. At the end of the work period, the risk of forgetting a disconnected overhead line or ground cable can be reduced or eliminated by being marked with a blue SnapLight® lightstick on it.
- **Individual Identification:** Visipad™ Yellow for the HSE manager on site



All Cyalume® products allow better marking, lighting and signalling during maintenance work at night and contribute to a reduction in the accident rate on those Infrastructure sites.

With all of these innovative solutions Cyalume Technologies delivers un-matched quality to meet the safety demands of Railway specialists. Cyalume® is working to offer its versatile and cost-effective products to other Rail companies in Europe as they are now recognized as exemplary instances of being able to benefit the entire Rail Industry.



About Cyalume Technologies SAS

The French subsidiary of Cyalume Technologies Inc., Cyalume Technologies SAS, produces and distributes visible and infrared tactical light sticks as well as non-pyrotechnic Battlefield Effects Simulators in Europe, Africa and Middle-East. Cyalume® products provide instant and independent light, with no maintenance. Cyalume® products have been developed in close cooperation with the US Military and are designed to be used by NATO forces.

Cyalume Technologies SAS is located in Aix en Provence, France

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