

Portable Light Towers vs. Truck Mounted Units Byline Article

It's a scenario that has played out an endless number of times. Fire and rescue units have been called to the scene of a crisis during nighttime hours. Police have arrived to assist. After anywhere from minutes to hours of teamwork by a variety of emergency services personnel, some people are taken away in ambulances, fires are extinguished and the urgency of the situation subsides.

While this brief assessment of an accident scene may hold true for most bystanders, professionals in the fire and rescue industry are all too aware that even when the immediate urgency of a situation is gone, the potential for danger is still present. Most scenes like the one described require cleanup and investigation of the area. And when that's happening at night, safety concerns become a more difficult issue.

For decades, the conventional answer to the problem of nighttime incident response and investigation has been quartz light fixtures mounted on emergency vehicles. While these fixtures certainly can be a serviceable solution to lighting an area, the limitations on these units become glaringly obvious when comparing them to portable light towers.

The notion of a standalone tower to provide light at a remote site is not a new one, but it is a relatively new trend in the emergency services field.

Move It or Lose It

The problem of mobility and flexibility with truck-mounted light units is clear. It is often not feasible to maneuver a fire engine, ladder or other vehicle into the correct position to attain desired lighting. Portable towers allow for maneuverability and can be quickly placed where needed.

Even more importantly, mounted units are just that. The units themselves cannot be moved. The mobility of a lighting unit mounted to a vehicle is limited at best, but mobility becomes a moot point when the vehicle supporting the unit is gone.

If another emergency arises that requires the vehicles to leave the existing scene, the cleanup and investigation crews could literally be left in darkness. On the other hand, keeping a half-million-dollar piece of equipment at a scene for lighting could result in anything from a minor inconvenience to a major dilemma. In some cases, a firefighter and a truck might remain at a site for several hours during a police investigation. In other cases, the same firefighter and truck may be unable to quickly respond to the next emergency while tied up with lighting an important scene. In either situation, a portable light tower could take over lighting duty without confining anyone or anything for hours on end.

Portable light towers can remain at a scene all night long without any fire department support. They can operate under their own power without the aid of an outside power source. If a tower is being used for investigation, the police could bring the tower back to the fire department when finished, or the tower could even be picked up the next day if necessary. This flexibility advantage alone is a compelling reason for the fire and rescue industry to seriously consider portable light towers.

Putting A Lot More Light on the Subject

Improvements in technology have created additional advantages to operating with a portable tower. With advancements in fixture technology, some portable light towers can generate up to five times the light output of conventional quartz fixtures, while using the same amount of energy. Such fixtures may take two to three minutes to reach full intensity. With this in mind, some towers include a 500-watt quartz fixture that instantly provides light to the scene while the primary fixtures warm up.

Elimination of “dark spots” is another benefit afforded by the increased lighting capacity and maneuverability of portable towers. Structures will often obstruct available light from truck-mounted lights and create areas where nothing can be seen, leading to trip and fall accidents or even more serious problems. Portable light towers can be easily moved to

the appropriate locations at the scene and at the same time provide a far greater level of illumination, providing virtual daylight to the night.

While the intensity of the fixtures is impressive, the area that can be covered by that light is just as remarkable. During accident calls along freeways and other busy roads, it's not uncommon for traffic to be allowed to pass through. Portable towers can light up a very large area, up to two city blocks in some cases, providing both responders and passers-by with the necessary light to avoid danger.

Be Prepared

Many fire departments have had an opportunity to rent or borrow portable light towers from time to time, but more departments are beginning to realize the direct benefit of having their own portable light towers. Fast emergency response time is invaluable. Light can be a deciding factor in the success or failure of a rescue operation, so having towers readily available as emergencies arise is far more practical and beneficial than having to take the time to track one down as needed.

Some departments may not be convinced that they have a need to purchase one or more portable towers because they may have relatively few incidents to which they respond that would require the additional light. However, a portable light tower could be utilized at times other than during emergencies and investigations.

Volunteers comprise the majority of many departments' firefighting personnel. It can be difficult to arrange daylight training sessions while these volunteers are at their full-time jobs. Nighttime training becomes a must, and a portable light tower is exactly the tool needed to accommodate these sessions. In addition, the police or state patrol can also use a light tower while conducting an accident re-enactment or other investigation.

Getting Up and Running

The benefits of a portable light tower seem clear once it is at the site doing its job. Fortunately, getting it to the site and deployed are not difficult chores either. Fire

departments that use a portable tower will have personnel go through a brief training period so that everyone understands how the unit works, but from that point operation is really simple.

Basically a two-wheel trailer, most units can be easily towed behind a fire chief's SUV or a pick-up truck. Once the tower has arrived, deployment begins. The tower is first moved to its desired location. Outriggers are then set to stabilize the machine before cranking the tower into the vertical position. The process takes about three to five minutes. The engine generator can be turned on to begin powering up the lights at the same time the tower is being set up to save time in urgent situations.

The “Added” Power Benefit

The most interesting aspect of the portable light tower may be its bonus benefit. Portable light towers are also standby generators to provide power at the scene. Some light towers designed specifically for the fire and rescue industry are outfitted with automatic voltage regulated (AVR) generators. Unlike capacitor-regulated generators, AVR generators offer enhanced reliability by stabilizing the flow of electricity through the unit to provide consistent, regulated power.

An AVR generator can power emergency equipment, such as fans and light stands. With a portable tower on scene, there's no need for a separate generator to be brought in for additional functions. With a variety of models to choose from, a larger unit can also be used as an emergency generator for the fire station in the event of a power outage.

Even with its clear advantages over truck-mounted units, portable light towers are still priced competitively and in some cases are even less expensive to buy. Portable light towers are also cost effective in terms of operation, consuming an average of one gallon of fuel for every two hours they are running. The illumination provided by tower fixtures is still stronger than similar technology now being introduced into truck-mounted units. And again, towers will always be maneuverable.

Educational Process

Portable light towers have proven to be an effective tool for those in the fire and rescue industry that have had the opportunity to use them. Unfortunately many departments are still unaware of the technology. As information spreads, a department will be able to weigh the benefits of portable lighting equipment in an effort to ensure each nighttime emergency goes smoothly and safely.