





Crash Site: Body recovery in progress - over 102 died when the lead locomotive of the Munich-to-Hamburg InterCity Express broke loose at 125 mph on June 3rd.

C.P.R. and periodic pulse and/or breathing assessment.

Philosophy Of Resuscitation

Even with all the resources available to assist the rescuer in casualty resuscitation, the decision making process behind the institution of these devices is still an important factor. The process behind the institution of life-saving procedures has

become more complex as our patients live longer and have more numerous medical problems.

The presence of 'Living Wills' and the patients 'Right to Die' has reduced, in many cases, the need to provide resuscitative support in the pre-hospital setting.

In the area of traumatic injuries, patients suffering from cardio-respiratory arrest, secondary to blunt trauma are no longer considered viable. Less than 1% of these patients have any chance of surviving their

injuries. The multiple internal injuries involved in blunt traumatic force are so devastating to the body that even immediate surgical intervention will offer little hope.

Therefore, these patients are considered non-viable and resuscitative measures are not initiated if they are in arrest.

However, in the situation of cardio-respiratory arrest, secondary to penetrating trauma (e.g. stab wound, gunshot wound) the prognosis is different. Due to the specific nature of these types of injuries, immediate and rapid surgical intervention can make a difference.

The priority of rescuers is to rapidly assess and transport the patient to the closest appropriate medical facility. ●

ABOUT THE AUTHOR

Lt. Peter Carafano RN/RPM is an engine company officer with the Delray Beach (Fla.) Fire Department, USA. A Paramedic, with 17 years experience in the field of pre-hospital medicine, he is also a Registered Nurse who has worked in the area of Emergency Nursing for 12 years. He has spent the last 10 years writing, teaching and lecturing in various related areas of pre-hospital medicine including cardiac and trauma management as well as chemical, toxicological and biological exposure management. He can be reached in the U.S.A. at the Delray Beach (Fla.) Fire Department. (561) 243-7515 or by E-mail at Carafano@flite.net.

AWARD WINNING FOAM EXTINGUISHES U.S. TRAIN DERAILMENT FIRE

"I don't know what the fire would have done if we had not put it out when we did. Our primary concern was that the train car was going to explode."

These were the relieved words of Fred W. Mills, Chief of the Lynchburg City (Virginia) Fire Department, following a major train derailment in the Southeastern USA. The post-crash fire raged for several hours until it was extinguished by the new generation fire extinguishment and cooling agent, Pyrocool FEF.

Shortly after 9:30 on the morning of March 31st, 1998, an unattended 65-car freight train owned by Norfolk Southern Corporation began rolling away from the Montview Virginia rail yard towards the centre of nearby Lynchburg (population 75,000).

Before railway officials could react, the train, which included a tanker containing 20,000 gallons of acetone, violently collided with another unattended freight train parked near the city's centre. An acetone tanker on the moving train and the second locomotive's 7,000-gallon diesel fuel tank, leaked out and caught fire.

Four engine companies of the Lynchburg Fire Department, with six firetrucks and over 50 firefighters, together with hazardous material speciality teams from four nearby cities, responded to the scene. Fearing this to be insufficient, city officials also brought in their OSHKOSH P1000 CFR from the community airport, loaded with conventional AFFF product.

Flowing a combination of water and AFFF, firefighters continuously sprayed the flames, containing the fire to the immediate area, but were unable to extinguish it. Apprehensive that the locomotive's diesel fuel, now boiling within the saddle tank, could explode, fire officials decided to attempt a different tactic.

Running 300-feet of hoseline down the 45° embankment on the side of the wreckage where the fire was worst, firefighters turned to the new technology firefighting agent Pyrocool FEF. Because Pyrocool FEF could not only be mixed with water at the low rate of 0.4%, but also had the proven ability to cool and extinguish large scale 3-dimensional fires rapidly with minimum equipment and personnel. Only two firefighters, using a single small diameter line with a conventional nozzle, were required.

Within minutes, using less than 10 gallons of Pyrocool FEF, the fire was totally extinguished. The firefighters continue their flow for several more minutes to cool the area. Ultimately, less than 30-gallons of Pyrocool FEF were used.

"Over 600 gallons of AFFF were flowed during the extinguishment attempt. The tanker still had 10,900 gallons of acetone in it after the fire went out, and could have burned on for hours," said Chief Mills. "The use of Pyrocool saved us a lot of time and also had the benefit of allowing the scene to be cleaned up and the railroad back running quickly."

Pyrocool FEF was developed in the US to extinguish difficult fires, including pressurised and 3-dimensional fires. Unlike conventional AFFF, the product is totally biodegradable and non-toxic, and in June 1998, won the prestigious Presidential Green Chemistry Challenge Award given by the U.S. Environmental Protection Agency.

