



The Invisible Killer

RESCUE FROM A CONFINED SPACE

Editor's Note: This article is the first in a two-part series.

by Greg Valcourt and John Gatland

Stations 3 and 5 are alerted to a call for a "man down" at a playground. Ambulance 3 and Engine 5 respond to the call from their quarters, and Medic 3 responds from the local hospital.

Ambulance 3 arrives on the scene first, and the EMTs are met by a telephone company employee, who states that her co-worker had gone down a manhole to take a reading in an underground vault and failed to reappear. She states that she repeatedly called down to her partner but received no answer. She then dialed 9-1-1 and waited for rescue personnel to arrive. According to the woman, her co-worker has been in the vault for approximately 10 minutes, and no one else has entered the manhole. The victim is known to have high blood pressure and some type of heart condition.

One of the EMTs from Ambulance 3 shines a flashlight down the manhole and sees the victim lying on the bottom of the vault next to the ladder. The victim appears to be unresponsive, but his complete condition cannot be determined.

Because of the victim's medical history, the responders assume that he collapsed from some type of cardiac problem. To further assess the patient, one of the EMTs enters the vault with a flashlight and an airway kit, while



Entry team descending into vault with SCBAs and lifelines. Note the tripod and rope rescue system above the hole.

the other EMT updates Engine 5 and Medic 3, which are still en route, about the situation. As the EMT who entered the vault reaches the bottom of the ladder, he calls up to his partner that he is having difficulty breathing. He starts to climb back up but collapses. Now there are two victims at the bottom of the vault.

Engine 5 arrives, and the lieutenant sizes up the situation. He determines

that since both the EMT and the original victim entered the vault without self-contained breathing apparatus (SCBA) and are now unresponsive, the atmosphere inside the vault must be untenable. He calls back to dispatch with an update and requests that Squad 5, Ladder 3 and an additional medic unit and ambulance be dispatched to the scene.

The lieutenant then instructs his crew to set up a tripod and rope rescue system above the hole. Next, he orders a team of two firefighters with SCBAs, class-3 full body harnesses and lifelines to enter the vault with the rope rescue system and a set of "quick-attach" wristlets.

The entry team's mission is to attach the wristlets to the fallen EMT and have personnel outside the vault hoist him to safety. Once he is safely above ground, the entry team will attempt to rescue the telephone company employee in the same manner. Two additional firefighters, outfitted with the same equipment as the entry team, stand by in case another emergency entry or rescue is needed.

Meanwhile, Medic 3 and Ladder 3 have arrived on the scene. The paramedic crew from Medic 3 sets up equipment for two potential cardiac arrest victims while Ladder 3's crew is assigned to help remove the victims.