

FACE: 87-16
DATE: November 15, 1986
CAUSE: Electrocution
SUBJECT: 31-Year-Old Fire Chief Electrocuted in North Carolina

On November 15, 1986, a 31-year-old male chief of a volunteer fire department was electrocuted while trying to remove an injured person from an automobile that had struck a utility pole. Another rescuer was electrocuted and two were severely burned.

While the chief was a volunteer with this fire department, he was a full-time paid fireman for a nearby city fire department. The chief and several other firemen were already out responding to a power line transformer fire when they received a call about an automobile accident. A car had hit a pole carrying a 7,200-volt, three phase power line. The pole broke off at ground level. One conductor was on the ground and two others were sagging 3-5 feet above the ground. An injured passenger was pinned in the vehicle. The ground was wet. Eight fire and rescue personnel responded. All firemen except the chief and two other firemen were wearing gear that included leather gloves and rubber boots. The car was on its side 2 feet from the downed conductors, which were between the car and the road. To stabilize the car and keep it from turning over, a steel cable attached to a winch on a rescue vehicle was extended to 47 feet. It was passed between the sagging conductors and the conductor on the ground, and attached to the roof rack of the car. The chief, 6 firemen, an EMT, and a bystander were holding the steel cable. Five firemen let go after being told to "stand back." The roof rack then broke loose, and the rack and cable contacted the sagging lines. The chief and bystander were electrocuted, and a fireman and the EMT suffered severe burns. The injured fireman experienced full cardiac arrest but was revived. Recommendations:

- o Electrical sources that pose an imminent danger to rescue personnel should be de-energized before any rescue attempt.
- o Fire department procedures should require that all personnel at the scene of an emergency wear personal protective gear.
- o Only authorized rescue personnel should assist in rescues.
- o Firefighters should be trained in hazard recognition, preventive measures for safety during rescues, and safe rescue techniques. In this case it would appear additional training is needed, particularly in electrical hazards. The method adopted for stabilizing the car was ill-conceived.
- o Personnel coordinating activities at an accident site should not become involved in the rescue effort if enough personnel are available. "Hands-on" involvement can cloud judgement.