

Standard Operating Guideline

Guideline 408.0 Emergencies at Electric Substations



Incidents which require fire department personnel to enter electrical substations to rescue and remove persons in need of assistance present very serious potential dangers. In order to operate safely in these situations, special precautions must be taken and rigidly enforced.

All reported fires or explosions in substations shall receive a Crew Call and a Chief Officer response. The appropriate responsible utility company shall be immediately notified by the Dispatch Center. The Dispatch Center should also attempt to obtain information about the substation from the utility that may be beneficial to site operations and obtain an ETA on the utility's response to the scene.

It shall be the policy of the City of Bryan Fire Department that no fire department personnel enter a substation unless absolutely necessary to save life. The first arriving officer must attempt to gather all available information about the nature of the situation. Reconnaissance should be performed by looking over block walls or through fences. If no victim is located, the company should stand by and wait for the electric utilities troubleshooter to arrive. If a victim is located, personnel should attempt to evaluate the condition and position of the victim. If the victim appears to be stable, the crew should instruct the victim not to move and assume a stand-by posture to await for additional resources to arrive. If the victim is savable, but in a critical position, the company officer may elect to cut the lock on the gate and enter, keeping in mind the extreme danger that the rescue personnel will be exposed to.

Operations within substations shall be approached with extreme caution. Depending on the type of substation, maximum voltage ranges from 69,000 volts to 500,000 volts. The Fire Department has no equipment that can safely insulate personnel from these voltages. Direct supervision is required and all safety precautions and procedures shall be rigidly enforced. Operations shall be conducted in a manner which avoids premature commitment to unknown risks. A minimum amount of personnel needed to affect a rescue will be allowed to enter the area. Personnel must always keep in mind the reduced clearances and assume that all equipment inside fenced area is energized. Personnel must stay low, and carry tools horizontal with the ground and below waist level. The fire department has no equipment that can safely insulate personnel from these voltages. If a victim is found to be in contact with electrical equipment, no attempt should be made to remove the victim until the representative from the utility deems it safe.

If rescue is deemed possible, Command shall assign a RIC unit with a 1:1 ratio to provide emergency assistance to the personnel in the substation. The team shall be standing by the entrance to enter if needed.

If fire or hazardous materials are involved, SCBA shall be worn.