

SAW OPERATIONS: THE “TAP” METHOD

Roof operations play a vital role in various types of fires and can affect their outcomes. Although staffing issues and fireground activities don't always allow for it, the roof ventilation team should consist of at least two firefighters. These firefighters must be competent, knowledgeable, and well trained in ventilation tactics and power saw operations.

Also, they must constantly monitor fire conditions, roof conditions, and safety procedures while operating in this precarious position. Unfortunately, roof conditions can change rapidly; the roof is no place for an untrained firefighter.

Smoke and noise are two major elements that can have a severe impact on saw operations. A sudden increase of smoke generated by the fire or a sudden change in wind direction can drastically reduce a firefighter's visibility. Add these conditions to the high noise level created by an operating saw and other fireground radio traffic, and it becomes evident that problems can arise during roof operations. The lack of visual and verbal communication between the saw operator and the backup/guide firefighter is of major concern in both of these scenarios.

THE “TAP” METHOD

To compensate for these variables and create a method of communication between the saw operator and backup/guide firefighter, the Fire Department of New York (FDNY) has a nonverbal method of communication in place. The procedure is easy to understand and use and helps to create a safer work environment and overcome the obstacles of poor vision and high noise levels. The procedure involves a “tap” system controlled by the backup/guide firefighter, who deploys the “tap(s)” to the saw operator’s back. The three simple tap commands are:

- One tap—stop cut.
- Two taps—cut.
- Three taps—shut down the saw.

The taps are distinctive so that the saw operator can distinguish them from accidental contact with the backup/guide firefighter and the actual operating commands. They are not so severe that they cause the saw operator to lose his balance during cutting operations. The taps are normally delivered to the saw operator’s back; the exact location may vary according to the saw operator’s physical positioning while cutting, such as working from a roof ladder. If the taps are to be delivered elsewhere, this is communicated prior to cutting operations. It is recommended that the taps not be delivered to the saw operator’s leg or the self-contained breathing apparatus (SCBA). Striking the leg may only indicate to the saw operator that the backup/guide firefighter wants the operator to watch his leg for clearance or an obstruction such as a skylight or a vent pipe. Also, this can create a hazardous condition when the saw operator momentarily takes his vision off the saw to glance back at the leg that was struck. In this situation, both firefighters must be prepared for an adverse reaction of the saw and keep focused on their duties throughout the operation.

Striking the saw operator's SCBA may cause it to shift on the operator's back and affect the operator's balance, especially if the SCBA is struck from the side or if the saw operator is in motion. Also, the SCBA's harness, bottle, and components may absorb the tap commands, which would then go unnoticed.

OTHER COMMUNICATION METHODS

Some fire departments use other means of communication such as hand and radio code signals for roof operations. These methods are assets in a smoke- and noise-free environment but may be inefficient when these elements are present.

The "tug on the coat" method operates on the same principles as the tap method; both use the same numerical /command guidelines. However, tugging on a saw operator's coat on a roof that has a slight pitch or on an icy flat roof may cause the saw operator to lose his balance and create a hazardous condition when a "live" saw is involved.

The tap method is a fairly easy system of communication to learn and use. Instituting it into a standard operating procedure will assist departments in making power saw operations run more smoothly, efficiently, and safely.