



SMART Drill

SHORT MOBILE AUTOMATED RELEVANT TRAINING

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| Title: Positive Pressure Ventilation | Drill Number: 3-027 |
| Author: Mr. Craig Smith, Fire Instructor FETA | Section: Emergency Operations |
| Initial Release Date: September 1, 2004 | Revision: |

This *SMART* Drill addresses the following Critical Needs Area(s):

- Review of critical basic knowledge, skills and abilities
- Review of important policies
- Review of knowledge, skills and abilities for high risk, but low frequency events
- Provide training on identified problem areas
- Provide training on safety practices for preventing injuries and accidents
- Introduce new policies, procedures, or skills



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I. OBJECTIVE(S)

- A. Students will be able to:
1. Identify the different types of fans
 2. Understand how to use Positive Pressure Ventilation
 3. Understand how Positive Pressure Ventilation works

II. MOTIVATION

- A. Using Positive Pressure Ventilation can assist firefighters in finding and attacking a fire and increase the chances of survival for victims trapped in a burning building.

III. PRESENTATION

- A. The different types of fans
1. Electric
 - a. Uses an electric plug
 - b. Power source is an electrical cord that is extended from the apparatus
 - c. Has no exhaust emissions
 - d. Never needs an oil change or gas
 2. Gas
 - a. Uses a motor mounted with the fan
 - b. Motor needs oil and fuel to operate
 - c. Will have exhaust emissions, which can collect Carbon Monoxide inside the structure that you are trying to ventilate
- B. How to set up and use Positive Pressure Ventilation (PPV)
1. Place the fan at a doorway or window
 2. Create an exit for the flow of air and for the smoke to escape
 - a. Exit can be a window or door
 - b. Near the fire location
 - c. Keep other doors and windows closed

3. Start the fan
 - a. The flow of air shall completely encompass the doorway/window
- C. How PPV works
 1. Assists firefighters in finding and attacking a fire
 2. Increases the chances of survival for victims trapped in a burning building by replacing smoke with fresh air
 3. Air flow
 - a. Creates an air tight seal at the entrance
 - b. Pushes air from the entrance to the exit
 - c. Removes smoke and replaces it with outside (fresh) air
Decreases the temperature in the structure involved
- D. Students will understand:
 1. What is a trench
 2. What laws/regulations govern trench collapse/rescues
 3. Why trenches collapse
 4. Where to position apparatus when responding to a reported collapse
 5. Initial responsibilities of the first arriving units

IV. SUMMARY

- A. Using Positive Pressure Ventilation can assist firefighters in finding and attacking a fire and increase the chances of survival for victims trapped in a burning building.

V. SOURCES

- A. Photo's taken by Craig Smith, Fire Instructor FETA.
- B. Drawings/sketches from www.tempest-edge.com

PowerPoint Slide Presentation Notes

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|-----------------|--|
| Slide 1 | |
| Slide 2 | |
| Slide 3 | |
| Slide 4 | |
| Slide 5 | |
| Slide 6 | Identify type and locations of PPV fans located on apparatus |
| Slide 7 | Identify the amount of electrical cord available on the apparatus for the PPV fan |
| Slide 8 | |
| Slide 9 | Ensure that the airflow will completely cover the entrance. Move the fan back if necessary |
| Slide 10 | |
| Slide 11 | After starting the fan, walk in front of the fan to check the ariflow |
| Slide 12 | |
| Slide 13 | |
| Slide 14 | |
| Slide 15 | |