

**LINE OF DUTY
DEATH REPORT
REPORT SLIDES**



F2021-08

Career Probationary Firefighter Dies
During SCBA Confidence Training
at Fire Academy – New York



Summary

- On March 12, 2021, a 21-year-old career probationary firefighter (PF) died nine days after a medical event during a training exercise.
- The PF was maneuvering through a self-contained breathing apparatus (SCBA) course training prop when he experienced a medical emergency and lost consciousness.
- On March 3, 2021, after two days of physically strenuous training, the PF spent the morning shift practicing individual obstacles to prepare for the maze.
- Recruit interviews reveal varying reports of the PF appearing nervous, pale, sweaty and cramping at different times during the late morning and while at lunch.



Tunnel Prop
(Photo by NIOSH)



Summary

- The afternoon training session continued with negotiation of the escape and confidence props practiced during the morning.
- In addition to the props from the morning session, a 21-foot-long wooden entanglement and obstacle confined space tunnel prop (tunnel prop) was added (see photo).
- While in the tunnel prop, the PF stopped moving.
- The instructors provided coaching to encourage the PF to continue moving through the prop, and assistance with displacing equipment interfering with forward movement.



Tunnel prop made from a ladder shipping box
(Photo by NIOSH)



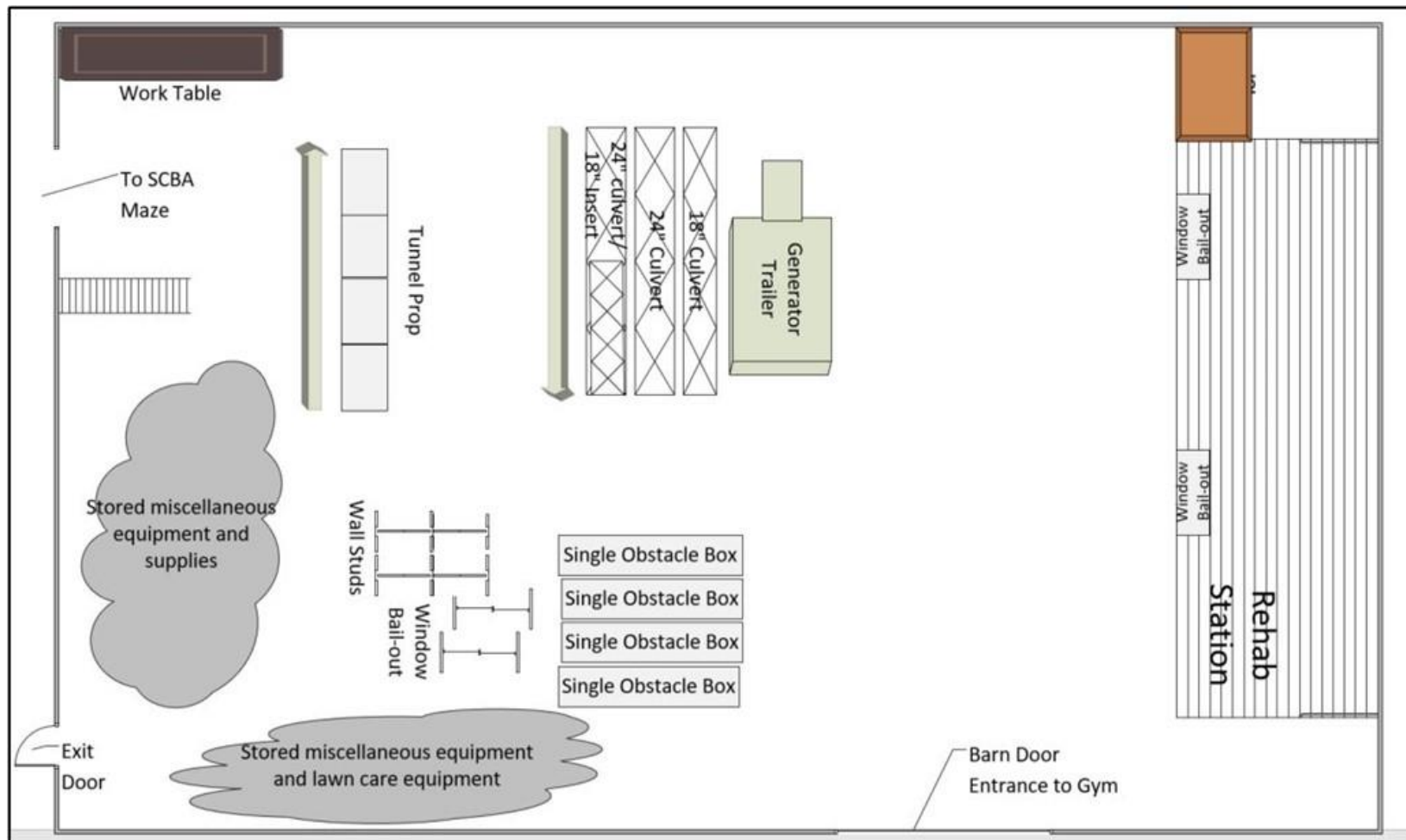
Summary

- When forward movement did not continue by the PF, the instructors pulled him partially from the tunnel prop to ensure no gear or equipment were obstacles, leaving his lower extremities within the prop, and continued to coach him through the tunnel prop.
- When the PF continued to not move, the instructors pulled him completely from the prop, removed his facepiece, and provided a rapid assessment.
- The PF was identified as not breathing and having no pulse. The instructors began cardiopulmonary resuscitation (CPR).
- The PF was transported to Hospital A and spontaneous circulation was gained before transport to Hospital B



The third restricted opening in the tunnel prop
(Photo by NIOSH)

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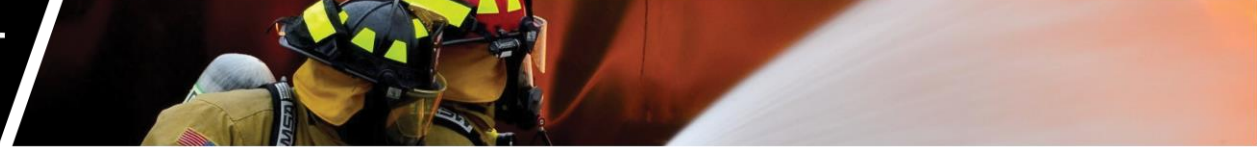


SCBA Confidence Drills training layout in the gymnasium.



Contributing Factors

- A patent airway was not maintained from the period of the PF's initial collapse in the tunnel prop until a definitive airway was established via endotracheal intubation on arrival at Hospital A
- Ineffective rehabilitation and medical monitoring were conducted and not in accordance with written policy
- Lack of a designated safety officer placed safety responsibilities on the instructors at the respiratory protection training evolutions
- Lack of standard operating procedures (SOPs) and instructional objectives that specify actions to be taken by instructors and recruits when personal alert safety system (PASS) and End-of-Service-Time-Indicator (EOSTI) devices are engaged and alarming during training evolutions
- Lack of a written risk management plan to address administrative controls that includes manufacturer recommended training on limitations of structural gear and SCBA and heat-related illness/injury recognition and reporting



Contributing Factors

- Lack of instructional objectives developed and communicated for each activity of the evolution based on the training facility's written Job Performance Requirements (JPR)
- Lack of comprehensive SOPs for each training prop and associated drill.



Recommendations

- Adhere to certification requirements for Basic Life Support (BLS) for Healthcare Providers, either through American Heart Association or American Red Cross, which require a clear and open airway and assisted ventilations with an oxygen source to prevent anoxic brain injury in a person in respiratory arrest
- Fire training facilities should ensure use of a comprehensive rehabilitation program complying with NFPA 1584, Standard on the Rehabilitation Process for Members During Training Exercises [NFPA 2015]
- Fire training facilities should appoint a safety officer to review the planned training exercises and actively observe all training activities
- The PASS and EOSTI activations during training should be addressed in training SOPs, and the instructional objectives should be outlined in training SOPs and repeated during pre-training safety briefings



Recommendations

- Fire training facilities should implement a systematic risk management process in all activities, and ensure that it includes training on structural gear and SCBA limitations and heat-related illness/injury recognition and reporting
- Fire training facilities should ensure instructional objectives are developed and communicated for training evolutions intended to satisfy a job performance requirement and ensure instructors follow compliance with instructional objectives and reasons associated with deviation from the objective(s)
- Fire training facilities should ensure that SOPs for each skill/drill are developed and implemented



Recommendations

The following recommendations were not considered contributing factors in this incident but are being provided as accepted standard operating guidelines and best practices:

- During advanced SCBA skills and confidence building training programs, recruits should be cautioned against “filter breathing”
- Fire training facilities should ensure that training props and confined spaces used in SCBA confidence training have adequate safety features, such as, emergency egress panels, emergency lighting, ventilation, and a temperature monitoring system to measure the internal ambient temperature

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