

VLR SAFETY TAILGATE TALK

February 2017

Subject: ~REVISED & UPDATED~

“Cutting Torch Safety”

Location (garage, mm, etc...):

Instructions:

Safety Coordinators & Supervisors should use this Tailgate Talk as a guide for discussion during their safety meetings. The primary purpose of the safety meetings is to give crews the opportunity to discuss any safety related concerns they may have.

Once the meeting has concluded, the Presenter should have each employee sign this form and include their Employee ID# in the spaces below.

TGT Presenter: _____

Name	Employee
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Flashback and backfires typically result in the improper use of cutting torches. Both of these common hazards can result in fires, explosions and injury to workers.

Backfire

By knowing how a cutting torch backfire occurs, the operator can correctly prevent it from happening. A backfire is an explosion or fire inside the torch head, commonly accompanied by a popping sound. **Backfires are usually caused by holding the cutting torch too close to your work, which causes gas starvation of the cutting flame.** This causes the flame to be sucked into the torch. Gas starvation can also be caused by equipment defects such as leaking hoses, loose connections, or incorrect gas pressure settings. Shutting off the oxygen valve should stop a backfire. If you do not shut off the oxygen, a flashback could occur.

Flashback

Cutting torch flashback occurs when overheated gases ignite causing a fire or violent explosion. Flashbacks can occur in any piece of the equipment, including the hoses, regulators, or cylinders. Like backfires, flashbacks have a unique sound associated with them as well. Usually, a constant whistling noise preceded flashback, but it can occur *without warning*. If a flashback occurs, close the oxygen valve on the torch immediately.

Flashbacks have been known to occur when fuel gas flows into the oxygen line. This can happen if the oxygen regulator pressure is set lower than the fuel gas pressure. The opposite can also happen when the fuel gas cylinder is nearly empty and the oxygen is at a high pressure. Always check your equipment's pressure settings.

Preventing Backfire and Flashback

To keep backfire and flashback explosions from happening to you, check that your cutting equipment has flashback arrestors; built-in or added on. Flash arrestors work both as check valves and flash arrest. It is not recommended that you have both, this could restrict gas flow, causing back fires and flash backs. Flash arrestors must be mounted on the torch end, whether built in or not.

