

BULLETIN

NO.: 24-111
DATE: July 8, 2024
TO: All Personnel
FROM: David Picone, Battalion Chief, Health and Safety Officer
SUBJECT: **Tailboard Safety** - CNG 2024 & LPG 2024

These two Tailboard Safety messages address CNG and LPG fires' unique challenges and differences.

The Occupational Health & Safety Committee's (OHSC) aim is to make these messages easily accessible to the crews and relevant to the time of year and individual safety concerns identified by training, administration, and current events.

The attached Tailboard will be placed in the 4th Quarter

- All other prior Tailboards can be found in Vector Solutions @
 - Logged in:
 - Use the following link: [Tailboard Safety Folder](#)
 - Or file path: [Vector Solutions SDFD files > Safety Communications > Tailboard Safety](#)
- Tailboard Table of contents (attached)

Supervisors of all Fire-Rescue Divisions select a Tailboard Safety Message and discuss it with their personnel.

- *Fire Operations:*
 - *During the morning meeting of the division's 'first-day' back (twice monthly)*
- *All other divisions*
 - *One topic monthly to review with staff*
 - *One (different topic) monthly to post at all site locations*
- *Please review this as a crew*
 - *Supervisors can add their crew members for assignment completion on all Health & Safety material*

Any questions should be directed through the chain of command.

- **Refer to SDFD Operations Manual**
 - **SI 10 Section 04 Safety Communications**

Don't hesitate to contact the Health and Safety Office at SDFDHealth&Safety@sandiego.gov with comments or areas of improvement. For all other questions, contact HSO/Battalion Chief David Picone at 619.533.4466 or dpicone@sandiego.gov



The Health & Safety App's QR code
login: SDFD@wellness.com
password: [support](#)
24/7 support [833-SDFD-HSO \(733-3476\)](tel:833-SDFD-HSO)





San Diego Fire-Rescue Department Health & Safety Office Tailboard Safety

Topic: Compressed Natural Gas Vehicle Fires

Background:

Liquefied Petroleum Gas (LPG) and Compressed Natural Gas (CNG) fueled vehicles can be found in San Diego. However, firefighting tactics differ significantly. It is vitally important that all members understand these differences and recognize the placards for each type of fuel.

In a recent incident in April 2022, Engine 36 responded to a fully involved environmental service truck. The crews encountered a fully involved vehicle that “vented” without notice, catching the crews off guard.

When arriving at a Compressed Natural Gas vehicle fire, **DO NOT** apply water to CNG cylinders exposed to fire because this may cool the pressure relief device (PRD), resulting in it not activating.

- Depending on the size of the tanks involved, it may take 10-15 minutes for the high-pressure release to subside and up to 30 minutes to discharge fully
- Establish a minimum safe perimeter of 100-ft around the vehicle
- PRDs are located on both ends of the cylinder, and they may be vented up and sideways up to 75 feet
 - Additional PRDs may be in the bottom of a vehicle on the regulator.
Always approach from a 45° angle
- PRDs can be activated by pressure or temperature

If the CNG cylinders are not involved in the fire, proceed with standard extinguishment tactics.

LPG – Cool the cylinder with water.

CNG – Do not apply water to the cylinder.

References:

[FDNY SOG/SOP](#)

[Watch Venting Tank](#)

[CNG Video](#)

[Close Call Videos](#)

[LAFD Incident](#)



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Fire Chief

David Gerboth
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John Wood
Assistant Chief, Business Operations

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New Safety Tailboards, Messages, Feedback, Suggestions and/or Reporting to the OHSC - SDFDHEALTH&SAFETY@SANDIEGO.GOV

“Promoting Safe and Healthy Lives”





San Diego Fire-Rescue Department Health & Safety Office Tailboard Safety

Topic: Propane Tanks/ Vehicles

Background:

San Diego County has fueled vehicles using liquefied petroleum gas (LPG) and compressed natural gas (CNG). **However, firefighting tactics differ significantly.** It is vitally important that all members understand these differences and recognize the placards for each type of fuel.

LPG:

- LPG (propane) is a liquefied gas stored in cylinders at a temperature above its boiling point. It remains under pressure and in liquid form only so long as the container remains closed to the atmosphere. Heat applied to the cylinder will cause excessive pressure to build up in the cylinder, opening the relief valve.
- There is a great possibility that a cylinder involved in a fire will "BLEVE" (Boiling Liquid Expanding Vapor Explosion). A BLEVE can occur in a matter of minutes. A satisfactory performance of a relief valve cannot prevent a BLEVE. When a BLEVE occurs in a propane cylinder, it will usually result in an explosion and fireball, with the cylinder becoming a flying projectile.
- Many vehicles are dual-fueled and use both propane and gasoline alternatively. A fire can originate with a gasoline leak and may eventually involve both fuels. **A BASIC PRINCIPLE IS THAT A PROPANE FIRE SHOULD NOT BE EXTINGUISHED EXCEPT BY SHUTTING OFF THE FLOW OF ESCAPING PROPANE.** We must extinguish the gasoline fire by using foam, dry chemicals, or water spray and, simultaneously, **COOLING THE PROPANE CYLINDER WITH HOSE STREAMS TO PREVENT A BLEVE.**

LPG – Cool the cylinder with water.
CNG – Do not apply water to the cylinder.

References:

[FDNY SOG/SOP](#)



[Alternative Fuel Fire Tactics](#)



[PFD Propane Fire](#)



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Tailboard Safety Messages

Jan-March	April-June
18 Watchouts & the Standard Firefighting Orders 2023	Africanized Honey Bees 2023
Attitude is Everything 2023	Air Drop Safety 2023
Cancer Risk Reduction 2023	Apparatus Backing 2023
Driving Situations 2023	CAPP Review 2023
Hazard Recongnition 2023	Eye Protection 2023
Health & Safety in the Workplace 2023	Fentanyl 2023
Hydration 2023	2021 FF LODD Statistics
MRSA 2023	Hand and Power Tools 2023
Roadway Safety 2023	Neon Signs 2023
Safety and Maintenance of Hand Tools 2023	Office Safety 2023
SCBA Immersion in Water 2023	Vertical Ventilation Safety 2023
Seat Belt Safety 2023	Supervisors 10 Commandments of Safety 2023
Unsafe Acts 2023	Office Cleanliness 2023
Tensioned Cable Safety 2023	Rescue Board 2023
Raised Foundation Hazards 2023	Taking Short Cuts 2023
Organophosphate 2023	Equipment Usage During Red Flag Warnings 2023
	Unconscious Patient Behind the Wheel 2023
July-Sept	Oct-Dec
Coastal Rescuer Safety 2023	Carpal Tunnel Syndrome 2023
Confined Space Hazards 2023	Freeway Response Guidelines 2023
Exercise Warm Up and Cool Down 2023	Hand Tool Injuries 2023
Firefighter Safety in Urban Interface 2023	Lifting Safety 2023
Ground Ladder Safety 2023	Office Environment Safety 2023
Internally Grounded Power Tools 2023	Office Lighting 2023
Leadership Influences on Safety Culture 2023	Personal Safety at Vehicle Fires 2023
Office Mishaps and Causes for Concern 2023	Rescue Water Craft 2023
Rescue Water Craft Situational Awarness 2023	Rhabdomyolysis Dangers 2023
Seatbelts Save Lives 2023	Safe Parking at Incidents 2023
Solar Panel Safety 2023	The Use of Highway Flares 2023
Station Safety Considerations 2023	Transient Encampment Fires 2023
Warning Signals of Extreme Fire Behavior 2023	High Pressure Gas 2023
Dangers of Energy Drinks 2023	Hydrogen Sulfide 2023
Eye Strain 2023	Medical Information on Smart Phones 2023
Natural Gas Incident Safe Practices 2023	Hazardous Materials Operations 2023
Hazard Tree - Tree Mortality Awareness 2023	Liquified Petroleum Gas 2024
Apparatus Floors and Leaf Blower Use 2023	Compressed Natural Gas 2024