NJDEP
Division of Air Enforcement

Diesel Enforcement Program

Regulatory Review, Green Trucks, TRUs

NJ State Police Training Center, Robbinsville, NJ

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ACE Academy
New Jersey Department of Environmental Protection

“Idling”

Running the engine without propelling the motor vehicle.

N.J.A.C. 7:27-14 Diesel-powered Motor Vehicles

N.J.A.C. 7:27-15 Gasoline-powered Motor Vehicles

Idling for more than 3 minutes is prohibited, with some exceptions.

“Diesel/gasoline-powered”
means utilizing a diesel or gasoline engine.

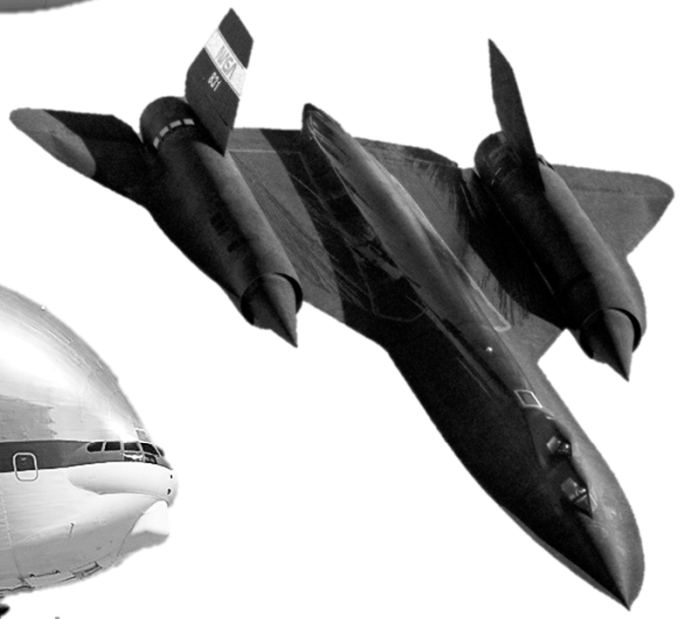
“Gasoline” includes:
gasoline, natural gas,
Liquefied petroleum gas, propane,
alcohol, fuel blends AND hydrogen!

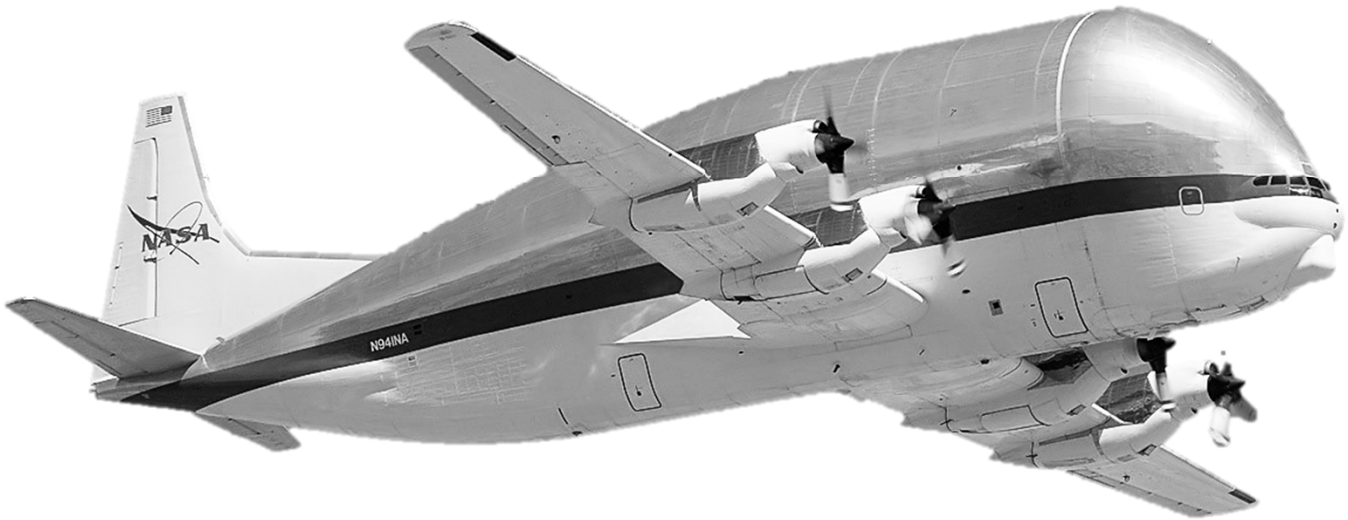
“Motor vehicle” means all vehicles propelled otherwise than by muscular power…

…excepting motorized bicycles and such vehicles as run only upon rails or tracks.

Federal Preemption – no enforcement on locomotives

Federal Preemption






SCHOOL BUS


DUCATI


CAT
963D

Exhaust fumes are TOXIC!

Idling can burn up to one gallon per hour!
…and wastes natural resources.

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Diesel Enforcement Program

“Green Label” Trucks

“Green Label” Trucks

SmartWay®

USEPA approved technologies - includes idling limiters.

CA NOx limit at idle – OR
5 minute auto-shutoff.

Unlimited use – if the
main engine is shut off.

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Diesel Enforcement Program

Transport Refrigeration Units (TRU)

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Transportation refrigeration units (TRUs) are gasoline and diesel powered cooling units that are installed on vehicles used to transport produce, meat, dairy products, and other perishable goods. TRUs are found on refrigerated vans, trucks, trailers, railcars, and shipping containers.

The TRU gasoline or diesel engines drive either mechanical or electric compressors. Sometimes an APU is utilized to power the trailer in transit. Some TRUs are equipped with electric standby systems (ESS), which allow them to use “shore-power” – electricity provided by the facility where they are housed.

TRU Systems

Vehicle mounted:

- Alternator and direct belt drive – drive engine dependent
- Auxiliary diesel and APU – a modular unit utilizing the vehicles fuel tank
- Self contained
    - may have their own fuel supply or tap into the vehicles fuel tank
    - may have electric standby systems (ESS) to use “shore-power”

Trailer (Reefer) mounted:

- Self contained
    - have their own fuel supply and exhaust system
    - may have electric standby systems (E/S) to use “shore-power

Containers:

- Self contained
    - have their own fuel supply and exhaust system
    - have electric standby systems (ESS) to use “shore-power

Vehicle Mounted Systems

Alternator and direct belt drive:

- drive engine dependent
- Typically roof-mounted
- Light duty vehicles
- Idling exempt when in use

Auxilliary Diesel and APUs:

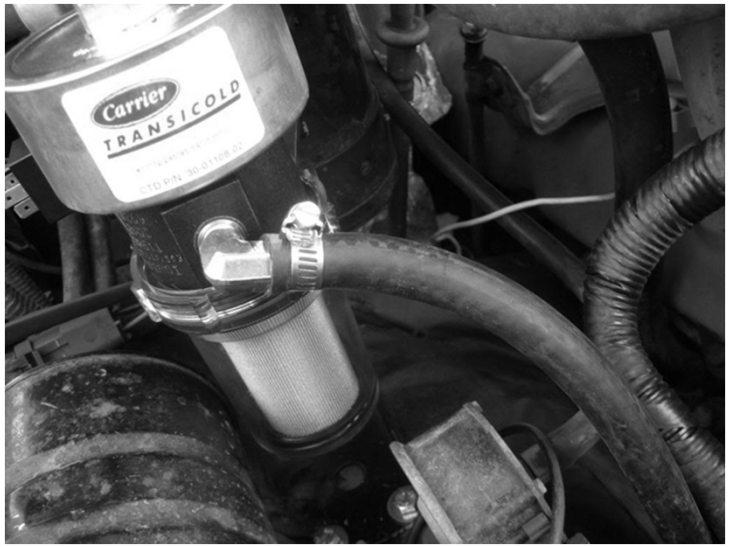
- Engine on-board
- Typically frame-mounted
- Utilizes the vehicles fuel
- Medium to heavy-duty vehicles
- Idling exempt

Typical roof-mount – exempt.

May be plug-in.
Look for fuel tank tap.

Likely just an insulated box, but the refrigeration unit may be inside. Likely electric - check for connections.

Vehicle Mounted Systems



Self contained:

- Body or frame-mounted
- Medium to heavy-duty vehicles
- Typically may have their own fuel supply, some tap into the vehicles fuel tank
- may have electric standby systems (ESS) to use “shore-power”
- **Vehicle NOT idling exempt**

Self-Contained Units

This may be a frame mounted fuel tank.

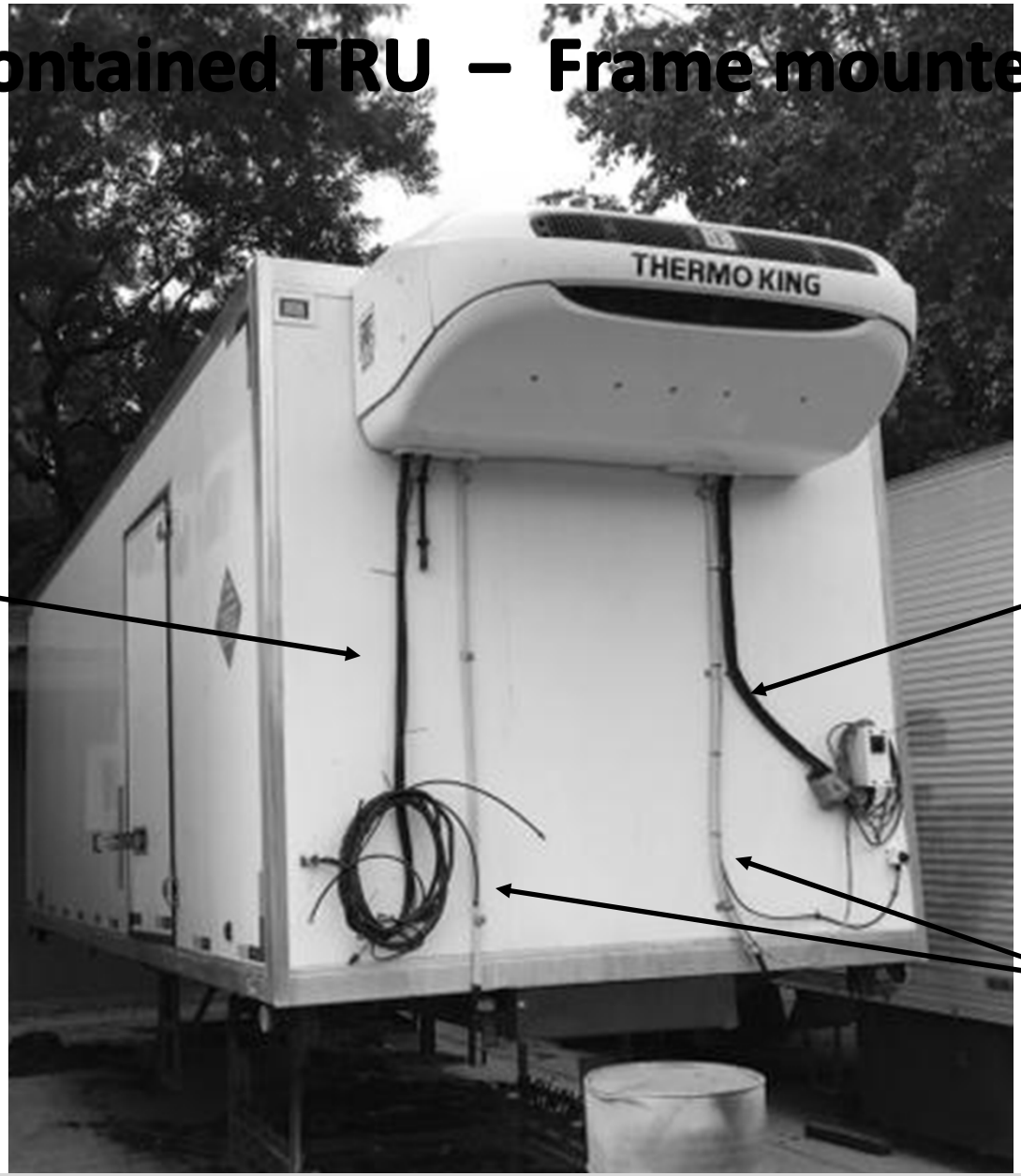
Note shore-power connection and frame-mounted tank


CARRIER
TRU Fuel Tank

Guard rails are an indicator for TRU tanks.
Note the frame-mounted tank behind the rail.

Demountable truck/trailer bodies

Self-contained TRU – Frame mounted body



Umbilical with fuel line – look for connection to the trucks fuel tank

Shore-power line

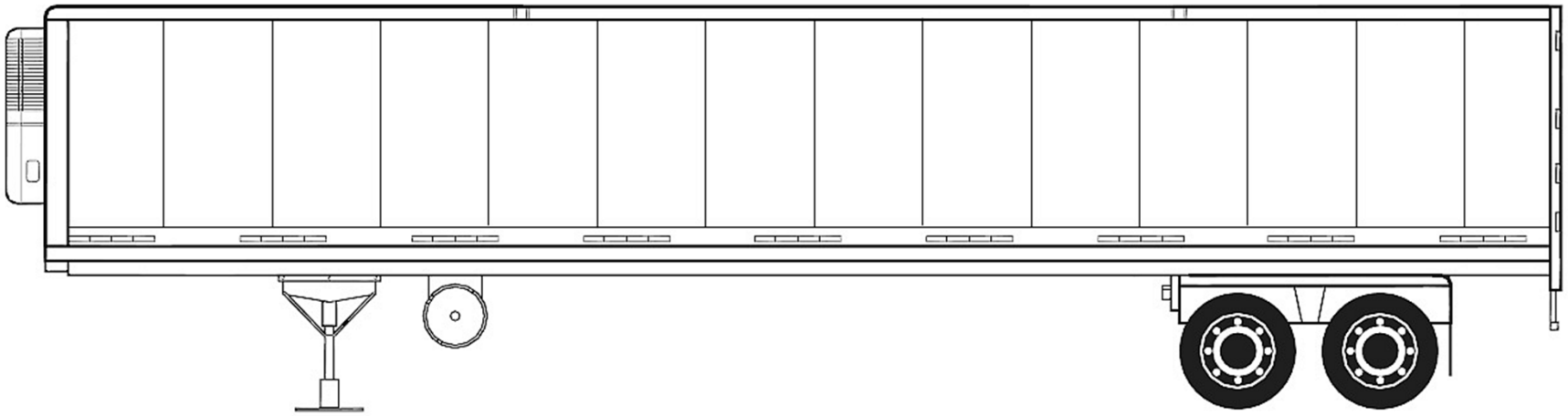
Evaporator drains

Commonly mounted on trucks, sometimes a frame trailer.
The truck is NOT exempt.

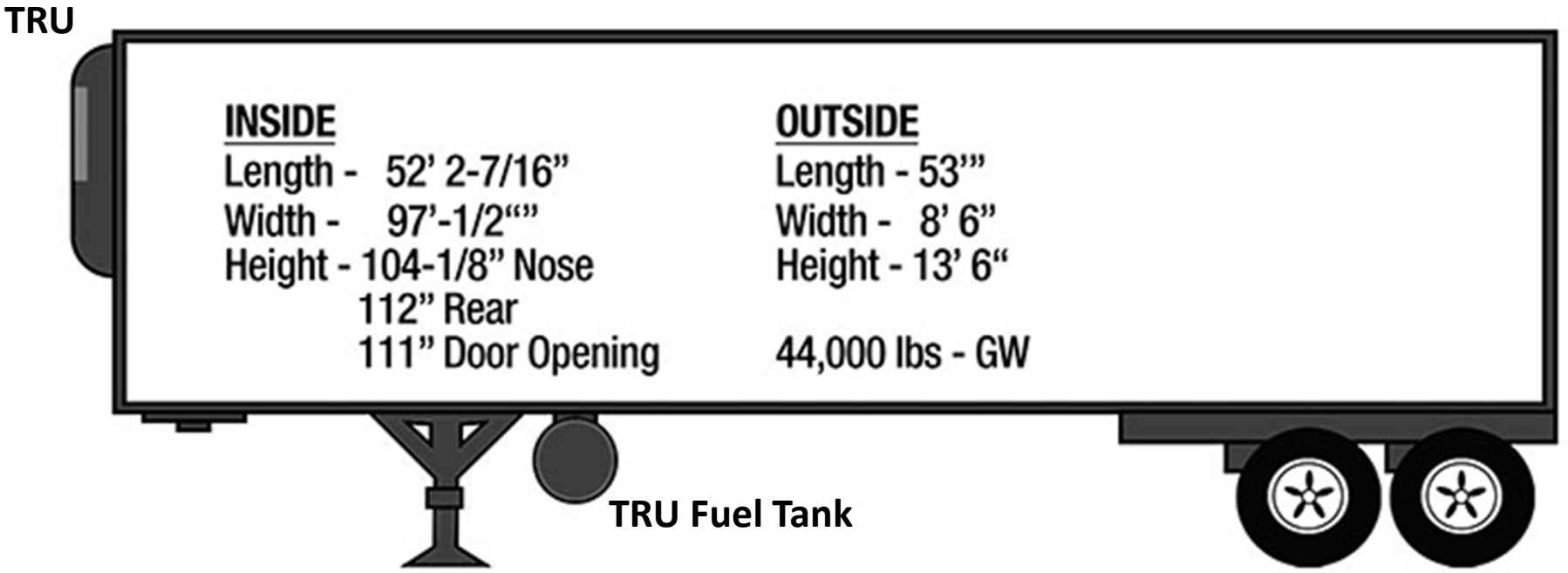
Trailer-Mounted Units

Self contained:

- body or frame-mounted
- have their own fuel supply
- may have electric standby systems (EES) to use “shore-power”
- **Tractor NOT idling exempt**



A typical long-haul refrigerated reefer.




CARRIER
ARB04096924X
53'
TRU Tank behind
landing gear.

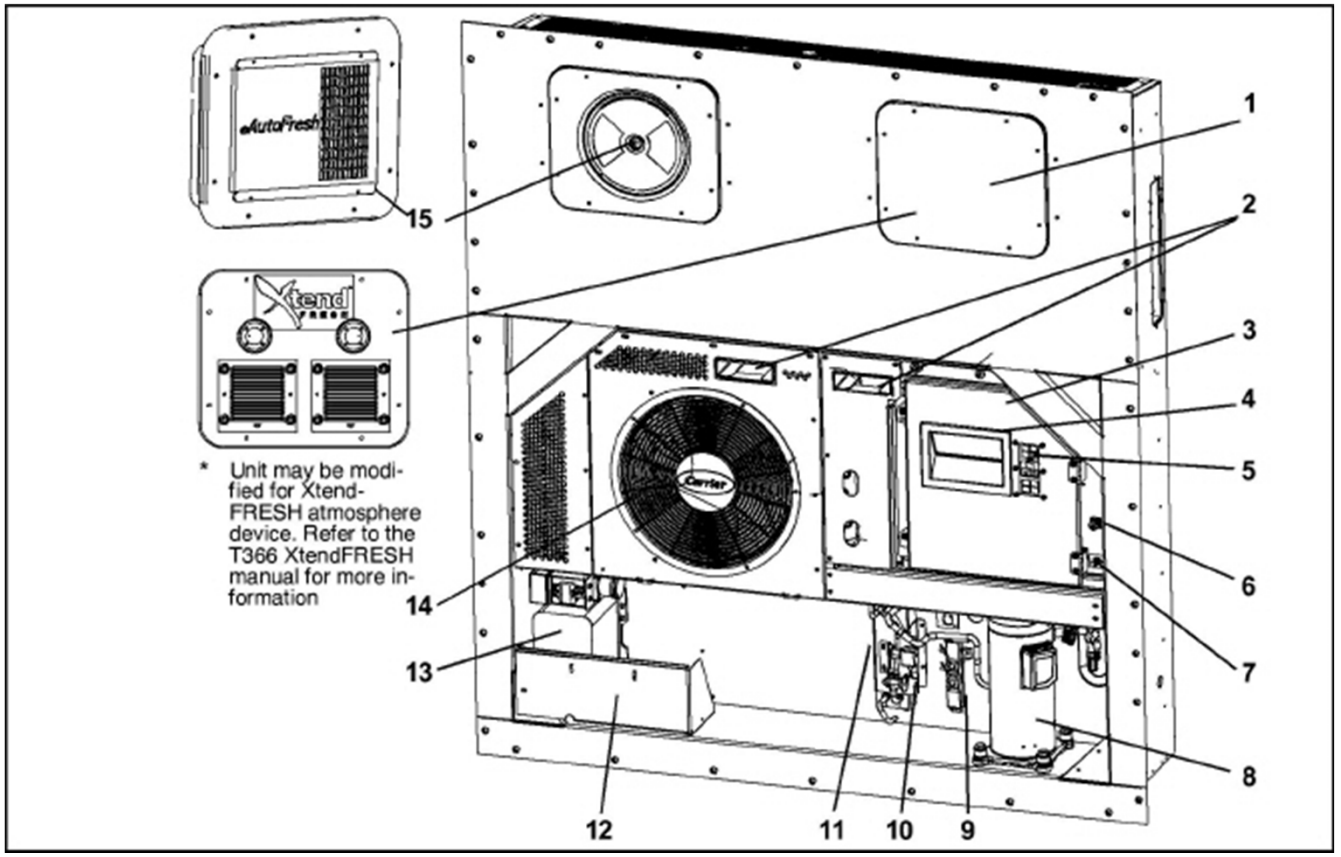

THERMO KING
PERFORMANCE
FOODSERVICE
Have a taste...
A Performance Food Group Company | www.performancefoodservice.com

Shipping Containers

A portable cold storage container.
The tractor is NOT exempt when it's being transported.

Built-in TRU container

Refrigeration Unit - Front Section



1. **Access Panel (Evap. Fan #1)**
2. **Fork Lift Pockets**
3. **Control Box**
4. **Unit Display**
5. **Key Pad**
6. **Remote Monitoring Receptacle**
7. **Start–Stop Switch, ST**
8. **Compressor**
9. **Supply Temperature Supply/Recorder Sensor Assembly (STS/SRS)**
10. **Economizer**
11. **Ambient Temperature Sensor (AMBS)**
12. **Power Cables and Plug (Location)**
13. **Autotransformer**
14. **Condenser Grille**
15. **Upper Fresh Air Makeup Vent Panel (Evap. Fan #2)**

Modal chassis mount

Integrated TRU

Under chassis TRU

Checklist

- Dedicated fuel tank
- Self contained or separate power source - not the vehicles engine
- Tap to vehicle fuel tank

Ask:
Does the vehicle engine have to be running for the A/C to work?

Is the vehicle exempt?

Critics Choice

For more information:

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