



VT-0004

0002

CES

Vehicle Tank Purging Procedure

This procedure describes field purging of Chart/NexGen Fueling LNG vehicle tanks. Verify vehicle tank nameplate has the Chart or NexGen Fueling logo.

- 1) Thoroughly read all instructions before starting work.
- 2) Review Safety Precautions Document - 0001.
- 3) Special equipment required:
 - a) Dry clean nitrogen gas. A larger nitrogen source, such as a liquid cylinder, is recommended for purging a cold tank.
 - b) Gas detection equipment to detect a better than 20% of LEL (Lower Explosive Limit).

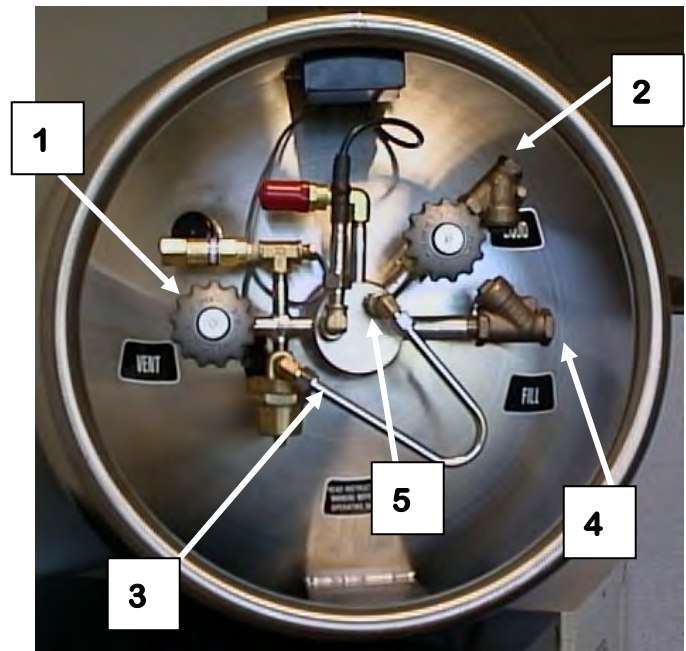
WARNING:

Normal compressor air will cause ice plugs to form in piping, delaying a complete purge of the vehicle tank. The vehicle tank will also have to be dried before being put back into service.

Ensure all liquid is drained from vehicle tank. Any remaining liquid will extend time needed to purge vehicle tank.

- 4) Close all valves on the vehicle tank.
- 5) Carefully disconnect and cap pipes and hoses leading to the vehicle vaporizer and vehicle vent pipe-away.
- 6) Disconnect vent quick connect fitting if present.
- 7) Connect purge gas hose to liquid in connection (4).

- 8) Allow gas to flow into vehicle tank until pressure in vessel exceeds 30 PSI.
- 9) Close purge gas inlet and open vent (1) and allow vehicle tank to vent.
- 10) Frost forms on the outlet line if vented gas is still cold. Continue purging until line defrosts. Note: This step may require several cylinders of Nitrogen.
- 11) Repeat Steps 8 and 9 until vented gas leaving vehicle tank is warm.



- 12) Repeat Steps 8 and 9 at least five (5) additional times after the vented gas exiting the vehicle tank has become warm.

This procedure is to be used by trained mechanics with experience using LNG systems. Review all safety documents applicable to this procedure. Always ensure test instrumentation is in good working order before starting procedure. Refer to Bulletin Safety-0001.



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- 13) If the vent valve (1) is inoperable, allow gas to flow through tank at a low flow until vent line is warm.
- 14) Cover outlet with hand to try to seal in as much pressure as possible before removing hand from outlet. Repeat this step at least six (6) times before proceeding to next step.
- 15) Lower purge gas flowing into tank and connect gas monitor to outlet of tank (1).
- 16) Take a gas monitor reading.
- 17) Close gas inlet. Wait a minimum of 30 minutes before proceeding to next step.
- 18) Open a slow gas purge into tank and take another gas monitor reading. Return to Step13 if methane is detected.
- 19) If no methane is detected, remove U-tube and economizer (3).
- 20) Purge tank through the elbow in the middle of the knuckle (5) for 10 minutes.
- 21) Blow purge gas out through the liquid lines and any other piping on the tank.
- 22) Tag vehicle with note indicating that vehicle tank has been purged and is safe for maintenance procedures. Tag should include purge date, purge gas, and name of person who performed purge.
- 23) Close or cover all vehicle tank openings.

Sample Purge Tag

PURGE TAG

PURGE DATE: _____

PURGE GAS: _____

PURGE PROCEDURE VT-0004/0

Purged by: _____

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