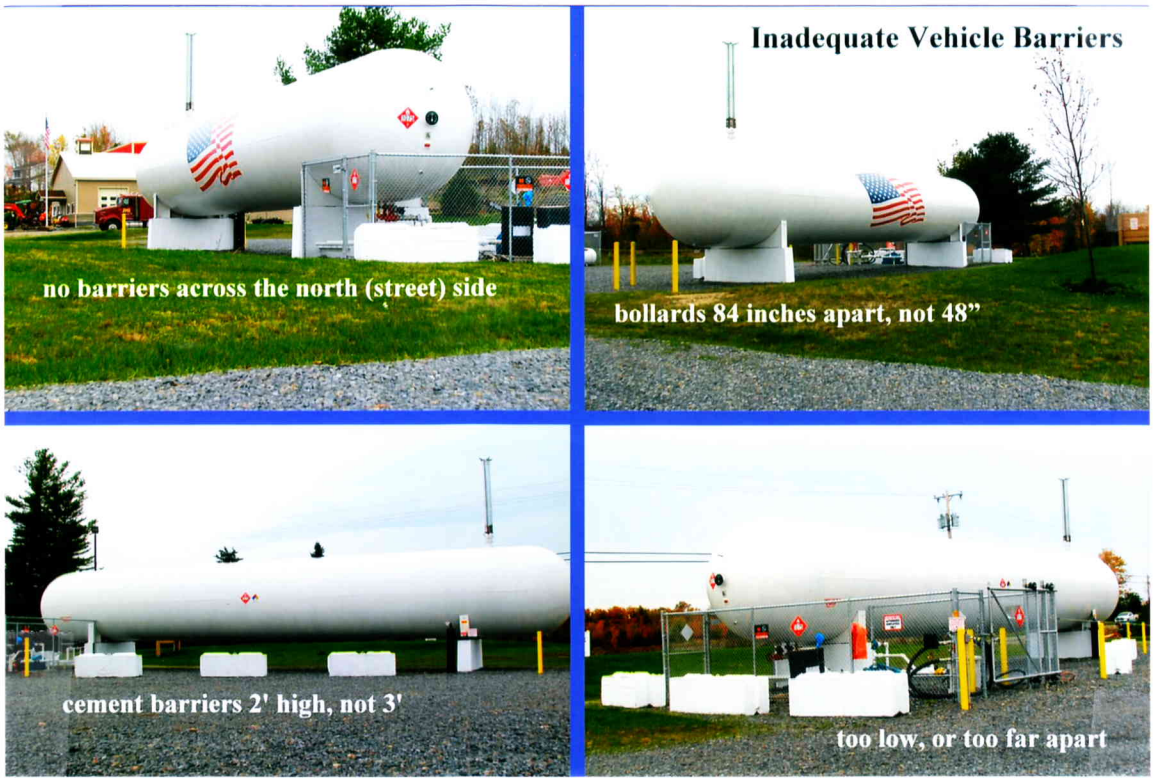


## FIRE CODE REQUIREMENTS FOR VEHICLE BARRIERS HAVE NOT BEEN MET

Long Energy's 30,000-gallon bulk propane storage tank is a "**container**"[1] under the National Fire Protection Act, Chapter 58, Liquified Petroleum Gases ("NFPA 58"), and therefore **must be provided with adequate vehicle impact protection** under both NFPA 58 and the NYS Fire Code, Chapter 38 before a Certificate of Occupancy may be issued.[2]

- **NFPA 58:** §6.6.1.2 LP-Gas containers or systems of which they are a part shall be protected from damage from vehicles.
- **NYS Fire Code:** §3807.4 Protecting containers from vehicles. Where exposed to vehicular damage due to proximity to alleys, driveways or parking areas, LP-gas containers, regulators and piping shall be protected in accordance with Section 312.

When vehicle impact protection must be provided, Fire Code Sec. 312. has 5 specific requirements for any posts/bollards that are used and two specific requirements for any other barriers used. It is clear from the photo & measurements shown above, even with no further testing, that Long's vehicle protection measures fall well short of Fire Code requirements:

- bollards are about 84 inches apart, rather than the required 48" max. [§312.2(2)]
- other barriers are two-feet high, rather than the required 3' [§312.3]
- there are no protective barriers at all on the entire north (street) side of the tank

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[1] **NFPA 58**: § 3.3.14 Container. Any vessel, including cylinders, tanks, portable tanks, and cargo tanks, used for the transporting or storing of LP-Gases.

[2] **OSHA vehicle protection standards for LP-gas have also been violated.** [29 CFR 1910.110]:
- §1910.110(d)(10) Damage from vehicles. When damage to LP-Gas systems from vehicular traffic is *a possibility*, precautions against such damage shall be taken [emphasis added];
- §1910.110(h)(6)(ii)(b) Containers shall be protected by crash rails or guards to prevent physical damage unless they are so protected by virtue of their location.
- §1910.110(a)(4) Containers - All vessels, such as tanks, cylinders, or drums, used for transportation or storing liquefied petroleum gases. 1910.110(a)(11) Systems - an assembly of equipment consisting essentially of the container or containers, major devices such as vaporizers, safety relief valves, excess flow valves, regulators, and piping connecting such parts.

## SIGNIFICANT RISK OF VEHICLE DAMAGE MANDATES STRICT, FULL PROTECTION

There are many factors that make the risk of damage by vehicular traffic at Long Energy's Duanesburg propane facility significant, thus invoking NYS Fire Code §3807.4. Due to that risk, the entire tank must be fully secured against vehicle damage pursuant to Sec. 312, not merely its rear and appurtenances. The risk factors include:

- the facility is unmanned & unguarded, and Long Energy reneged on its promise of a perimeter fence that would have kept out unauthorized vehicles
- the tank is situated on a semi-circular driveway, with two entry points from the road, and it is parallel to, and only 75 feet away from Western Turnpike/Route 20, the busiest road in Duanesburg
- Rt. 20 has traffic traveling at high speeds (often tailgating and passing over double lines), and is designated for use by large trucks carrying hazardous cargo, and by school buses;
- visibility is frequently limited on that stretch of Rt. 20 due to fog, especially in the evening, at night and in the early morning (the skid mark left this June in front of the propane parcel by a tractor trailer trying to avoid a school bus in the fog can be seen on one of the attached photos)
- the Planning Board failed to require placement of the tank deeper on the 300-foot deep lot; allowed all vegetation to be removed; and required no landscaping that would act as a buffer against oncoming traffic -- all contrary to the text and spirit of the Town Zoning Ordinance and Comprehensive Plan.

    - In addition, none of the recommendations of the US Department of Homeland Security for protection of such large propane tanks from the terrorist threat of intentional impact and release have been achieved, including strong vehicle barriers, the elimination of clear lines of site to the tank, and the creation of a suitable standoff distance and limitations on unauthorized entry.

As can be seen from the photos on the next page:

- the culvert located across the front of the parcel is neither deep nor wide enough to prevent vehicles from accidentally or intentionally entering the facility, and even if it were, the two driveway entrances/exits are sufficiently wide (over 40' each) to accommodate the huge tanker trucks that service the facility and can therefore be used for access by all vehicles
- the wide, near-level grading in front of the tank and along both of the entryways is no impediment to vehicles reaching the tank from Rt. 20

Any fire or explosion resulting from vehicle impact with the bulk propane tank could be catastrophic for neighboring residents and businesses, or for visitors to the nearby church and farmers' market. That danger is increased because there have been no early notification system or devices such as gas detection monitors and automatic dialers demanded or installed, no evacuation planning; and no acknowledgment that welding and metal fabrication activity takes place adjacent to the propane facility with appropriate adjustments made to Long's plan.

A strict reading of the vehicle impact protections in the Fire Code and NFPA 58 is particularly appropriate, because Long Energy's propane storage tank exposes those engaged in neighboring uses in this *C-1 zone* to a use which the Duanesburg Zoning Ordinance classifies as Heavy Industrial (§3.5.68), and to an occupancy that the Code Enforcement Officer has correctly classified as H-3, which is a High Hazard use and occupancy under the NYS Building and Fire Codes, rather than the M-class Mercantile occupancy appropriate to a C-1 zone.

**The photos on the attached page show the easy access from Western Turnpike/ Rt. 20 to the Long Energy Propane Facility**


- *above*: entryways to Long Energy Propane Facility; *below*: scenes along Western Turnpike - (photos taken by David Giacalone, May and October 2011)