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November 29, 2019

VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED
Docket Management System
U. S. Department of Transportation
West Building, Ground Floor, Room W12-140
Routing Symbol M-30
1200 New Jersey Avenue, SE
Washington, DC 20590

RE: NPRM - PHMSA – DOCKET NO. 2018-0025 - or RIN (2137-AF40) – LNG "RAIL TANK CARS"

Dear Sir or Madam:

Thank you for the opportunity to weigh in on the referenced *Proposed Rulemaking* that proposes changes to the *Hazardous Materials Regulations* to allow for the bulk transport of Methane, refrigerated liquid, commonly known as Liquefied Natural Gas (LNG) in DOT-113C120W specification rail tank cars.

For the reasons stated herein (see page 2), I am respectfully requesting the ***NO ACTION ALTERNATIVE,*** *leaving current regulations in place, with no new enabling provisions added,* until such time as the required scientific research, study, and analysis to support the unprecedented transport of LNG by RAIL TANK CARS in the United States has been satisfactorily completed. To eliminate any guesswork, the decision to allow the transport of LNG by RAIL TANK CARS must be based on sound scientific knowledge and experimentation using actual LNG, as opposed to chemicals that have differing physical and chemical properties. Finally, a *Quantitative Risk Analysis* should be provided to the Federal Railroad Administration for any LNG Rail Tank Car transport since each proposed route would present unique public safety challenges, e.g. sharing tracks or transportation routes with high-performance passenger rail.

I am forwarding this communication to you, in duplicate, via Certified Mail, Return Receipt Requested.

Sincerely yours,

Cecile T. Scofield

Cecile T. Scofield
Past President of Citizens for Environmental Justice of Greater Fall River, Inc. (Massachusetts)

Comments

In responding to your request for public input concerning the *Proposed Rulemaking* that would allow the unprecedented transport of Liquefied Natural Gas (LNG) by Rail Tank Cars, we unfortunately do not have the benefit of any scientific studies that could be used to support such a proposal. However, we do have the benefit of a Sandia Laboratories study that I believe can be used for comparative purposes even though the conclusions of the study were based on computer modeling as opposed to actual hands-on experiments that would offer concrete results.

Sandia published a report that provided extensive information about what would happen in an accidental or intentional spill of LNG over water. I understand that the study concluded that an attack on an LNG vessel would create a rupture of between 6 and 39 feet, and a 16-foot hole was used as a standard measure. **The study concluded that a spill from a 16-foot hole, if ignited, would create a thermal blast that would set buildings on fire and melt steel out to 1,281 feet, and people almost one mile away would suffer from second-degree burns**. A 39-foot rupture would burn buildings half-a-mile away and burn people over one mile away. In the worst-case scenario that involved three, 16-foot holes, structures almost half-a-mile away would be ignited and, again, people over one mile away would suffer burns.

The study determined that a pool of LNG released into the water and then ignited as it vaporized would create a giant fireball that would expand outward to a distance twice the size of the pool itself. A similar event could happen if a rail accident involving LNG occurred on a railroad bridge over a body of water. It is not out of the realm of possibility. In 2014, three CSX tankers sank as they leaked crude oil into the James River after a train derailment in Lynchburg, Virginia.

I understand the Sandia report also cited the chance that a fire in one of the vessel's multiple tanks could cause nearby tanks to breakdown, causing a cascading series of additional fireballs. Again, the study noted that its conclusions were based on computer simulations. In the case of transporting LNG in 30,000-gallon Rail Tank Cars, we don't appear to have the benefit of drawing conclusions from any computer modeling, or at least, to my knowledge, no such studies have been shared with the public.

Sandia Lab issued a report that was commissioned by the U. S. Department of Energy that questioned certain assumptions about LNG risks and hazards and suggested areas that should be reevaluated, including the following:

- Ramifications should a terrorist act occur;
- Identifying the risk zone for flammable vapor dispersion of approximately 1.5 miles from a leak causing a vapor cloud;
- Measuring Exclusion Zones from the LNG production facilities that include schools, higher education campuses, hospitals, and permanent residences

<u>These same standards should apply to LNG Rail Tank Cars as follows</u>:

- Exploring the ramifications of a terrorist attack on a train's consist of LNG Tank Cars;
- Identifying risk zones for flammable vapor dispersion of approximately 1.5 miles from a leak causing a vapor cloud from Rail Tank Cars from anywhere along entire LNG rail transport routes;

- Determining Exclusion Zones for Thermal Radiation and Flammable Vapor-Gas Dispersion along entire LNG rail transport routes;
- Identifying all *Potentially Sensitive Populations* and *Potentially Sensitive Targets*, including military installations, along entire LNG transport routes using aggregated population groupings within 1.6 miles on either side of the rail mainline from LNG production facilities to destinations, especially including deep water ports.
- Any assumptions used in determining Exclusion Zones for Thermal Radiation and Flammable Vapor-Gas Dispersion along the entire LNG rail transport routes should consider scenarios of both accidental and intentional breaches of LNG Rail Tank Cars

While the chances of an LNG accident happening at a FERC-jurisdictional LNG facility may be considered "negligible" and or "remote," that is no longer true for inland LNG liquefaction, storage and distribution facilities where FERC has disclaimed jurisdiction. There are no *Memorandums of Understanding* between federal agencies, such as the MOUs between FERC, PHMSA, U. S. Department of Defense, and U. S. Coast Guard to ensure some measure of protection for the public in the event of an accidental or intentional release of LNG.

If the *Proposed Rulemaking* is approved, PHMSA and FRA will be creating a system of **rolling natural gas pipelines** across the United States. These new **virtual pipelines** will carry LNG from inland LNG facilities, such as the New Fortress Energy facility, an affiliate of Energy Transport Solutions (ETS), located in the Hialeah Rail Yard in Miami, to roll-on/roll-off ships. Meanwhile, the public will be put in harm's way all along the transportation routes. This seems extremely unfair to an unsuspecting public that, for the most part, does not have the knowledge, experience or expertise required to objectively assess this *Proposed Rulemaking*.

In closing, for these reasons, I am respectfully requesting the *NO ACTION ALTERNATIVE, leaving current regulations in place, with no new enabling provisions added*, until such time as the required scientific research, study, analysis, and detailed *Quantitative Risk Analyses* for proposed rail transportation routes, to support the unprecedented transport of LNG by RAIL TANK CAR in the United States, have been satisfactorily completed.

Submitted by:

Cecile T. Scofield

Palm City, FL

November 29, 2019

cc: Florida Governor Ronald DeSantis, the Capitol, 400 S. Monroe St., Tallahassee, FL 32399-0001