



## Save Passamaquoddy Bay

A 3-Nation Alliance

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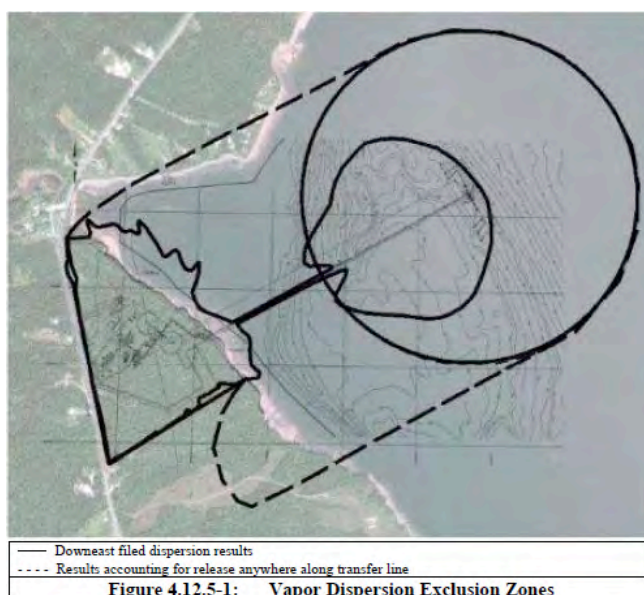
Jeffrey D. Wiese, Associate Administrator for Pipeline Safety  
PHMSA, U. S. Department of Transportation  
1200 New Jersey Avenue, SE  
Washington, DC 20590-0001

2014 December 4

### Re: Request for Interpretation of 49 CFR Part 193

Dear Mr. Wiese:

Downeast LNG has a proposed liquefied natural gas (LNG) import/export project in permitting with the Federal Energy Regulatory Commission (Docket Nos. CP07-52 [Import Project] & PF14-19 [Export Project]). Downeast LNG's vapor dispersion modeling assumptions (Docket No. CP07-52, Accession No. 20130523-5131) indicated flammable vapor could extend from a release at the trestle onto private property on the north side of Mill Cove and south of the proposed terminal property, violating regulations (see Illustration 1).



*Illustration 1. Vapor from a release from trestle or pier could extend over private property on the north shore of Mill Cove, and over property south of the proposed terminal.*

Downeast LNG then proposed placing 6-foot-tall vapor fencing alongside the LNG piping the full length of the trestle. Design release modeling with the vapor fencing in place resulted in no vapor extending over private property, in compliance with regulations. However, that assumes vapor fence integrity would always persist during the same event that could produce an LNG release — a flawed conclusion.

On 2014 January 30, PHMSA filed to FERC Docket CP07-52, Accession No. 20140203-4005, its Design Spill Determination that Downeast LNG's modeling results are in compliance with regulations for LNG released from a "single accidental leakage source." The Determination also stated that "single accidental leakage source" is not a defined source term.

PHMSA's webpage entitled "Mission and Goals" states (underlined text is my emphasis):

*Our mission is to protect people and the environment from the risks of hazardous materials transportation. To do this, we establish national policy, set and enforce standards, educate, and conduct research to prevent incidents. We also prepare the public and first responders to reduce consequences if an incident does occur.*

*Our vision is that no harm results from hazardous materials transportation. We cannot accept death as an inevitable consequence of transporting hazardous materials, so we will work continuously to find new ways to reduce risk toward zero deaths, injuries, environmental and property damage, and transportation disruptions.*

Save Passamaquoddy Bay requests interpretation of 49 CFR Part 193 for the following:

1. Does PHMSA consider intentional release scenarios, such as from sabotage or terrorism, as "accidental leakage," especially since Sandia National Laboratories' includes intentional LNG release consequences from LNG ships in determining LNG ship Hazard Zones, and since such scenarios present credible hazards to public safety?
2. Has PHMSA or any credible laboratory conducted research on LNG vapor fence (vapor barrier) integrity associated with LNG release due to impacts from confined vapor detonation, motor vehicle, heavily-laden ship, aircraft, bomb, or powered missile?
3. The proposed Downeast LNG trestle and pier would extend ~4,000 feet from shore, over halfway to the international boundary, with the pier projecting into the estuarine mouth of the St. Croix River (see illustration, below). The location is near

the ship transit fairway used by heavily-laden cargo vessels on their way to and from the Port of Bayside on the New Brunswick side of the river.



*Illustration 2. Downeast LNG project area, including trestle and pier.  
(Trestle and pier added by Save Passamaquoddy Bay)*

4. Port of Bayside traffic can transit on the Canadian side of the boundary for most of their trip, except around Saint Croix Island five miles upriver from the river's mouth, avoiding US Coast Guard LNG-ship security and authority, ultimately presenting a safety and security problem from Bayside-bound and -departing vessels to a berthed LNG ship at the proposed Downeast LNG pier, and the associated infrastructure.

It is credible that an incident — especially at a marine jetty — could simultaneously cause an LNG release and destruction of adjacent vapor fencing, rendering the vapor barrier ineffectual, with LNG vapor extending over private property in violation regulations as indicated in Illustration 1.

- a. If PHMSA does take such potential vapor barrier destruction with simultaneous LNG release into account...

- (i) Where is it indicated in regulation or rule, and in mathematical modeling of design releases?
- (ii) Where is it indicated in PHMSA's approval of Downeast LNG's design release modeling that such a scenario has been taken into account?
- b. If PHMSA does *not* take such possibilities into account, and since public safety is PHMSA's primary mission, how does the PHMSA decision regarding Downeast LNG comport with its public safety mission?

PHMSA's mission includes 'working continuously to find new ways to reduce risk.' Save Passamaquoddy Bay requests that PHMSA Interpret 49 CFR Part 193 while considering consequences of simultaneous LNG release and vapor fence destruction.

Very truly,

Robert Godfrey  
Researcher and Webmaster

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New Brunswick Office of Intergovernmental Affairs  
Maine Department of Environmental Protection  
Maine Bureau of Parks and Lands  
US Environmental Protection Agency (EPA)  
Passamaquoddy Tribal Historian Donald Soctomah  
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