

DIVISION 2 MEMORANDUM

TO: Paul Christian, Commissioner

FROM: Joseph Fleming, Deputy Chief - Division 2

DATE: 10/19/05

RE: USCG Circular (NCIV 05-05)

Thank you for the letter from “Marine Log” regarding USCG Circular, “Guidance on Assessing the Suitability of a Waterway for LNG Marine Traffic (NCIV 05-05). After reviewing the document I have the following comments.

- 1) The Guide uses the Sandia Report to determine potential consequences. As I have pointed out previously, the hazard distances in the Sandia report are much larger than the ones relied upon by the USCG when they allowed the ship into the Harbor after 9/11 (Quest). Perhaps more importantly the hazard distances recommended by Sandia are also much larger than the ones used by the USCG, over the objection of the BFD, when they conducted the table top exercises in 2003. (See attached letter from Dennis Maguire dated 09/28/03.)

DISTANCE TO HEAT FLUX LEVELS

	4,000BTU/hr/ft ² (12.6 KW/m ²)	
	1M ² HOLE	5M ² HOLE
QUEST (2001)	1,000 ft.	Approx. 1,260 ft
TABLE TOP (2003)	800ft	1,200 ft.
SANDIA(2004)/ USCG(2005)	Approx. 1,200 ft.*	Approx. 2,100 ft.*

- These distances are extrapolated from the Sandia report which only provided distances for 37.5 KW/m² (11,887 BTU/hr/ft²) and 5 KW/m² (1,600 BTU/hr/ft²). I believe my estimates are conservative.

The Sandia Report also provides as guidance for intentional spills, that for distances within 1,500 feet, “Thermal radiation can pose a severe public safety and property hazard and can damage or significantly disrupt critical infrastructure located in this area. ... Incident management and emergency response measures should be carefully evaluated to ensure adequate resources (i.e. firefighting salvage, etc.) are available for consequence and risk mitigation.” (This distance is almost double the initial distance assumed by the USCG during the drill in 2003.)

- 2) On page 14 of the USCG Circular, “Guidance on Assessing the Suitability of a Waterway for LNG Marine Traffic (NCIV 05-05), the USCG provided guidance on the implementation of this policy.

*Section 6. c - “LNG facilities in operation prior to the publication of this Circular; Current safeguards and security measures for LNG terminals, including related LNG marine traffic, that were in operation prior to the publication of this Circular should be considered appropriate. **However, they are subject to case-by-case review if circumstances warrant.** Modification or expansion of existing facilities may be such a circumstance.*

In my opinion, the fact that the only table top exercise ever conducted for LNG vessels in Boston Harbor was based on assumptions that were 50-100%, off regarding the potential consequences, justifies the implementation of this policy, even though it is an existing facility. In fact, it probably makes it more justified than if it was a new facility, since this is an actual not a potential hazard.

In my opinion, the City of Boston should immediately petition the USCG use “Guidance on Assessing the Suitability of a Waterway for LNG Marine Traffic (NCIV 05-05)” to assess the City of Boston capability of dealing with an LNG incident. Without this information the City will not have an effective Emergency Evacuation Plan.

Respectfully,

Joseph M. Fleming
Deputy Chief – Division 2