



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

FEB 28 2012

Mr. Leon A. Bowdoin, Jr.
Vice President, Engineering
and Operations
Hess LNG
One New Street
Fall River, MA 02720

Dear Mr. Bowdoin:

By letter dated August 31, 2011, you asked for a written interpretation on the applicability of 49 CFR 193.2059(c) to a hypothetical waterfront liquefied natural gas (LNG) plant. Specifically, you asked whether certain design spills could be used to determine the exclusion zone for a pipe-in-pipe (PIP) marine cargo transfer system at such a plant. You submitted an engineering analysis to support the design spills identified in your request and stated that the absence of information on the actual location of the plant should not preclude PHMSA from providing an opinion on the appropriateness of those selections.

PHMSA believes that location specific hazards could play a part in selecting a suitable design spill for your proposed PIP marine cargo transfer system. Therefore, we cannot provide an opinion on the suitability of the specific selections identified in your request at this time. We can, however, offer additional guidance on the approach that should be used in determining an adequate design spill source (e.g., a flaw, defect, rupture, or damage).

An acceptable method for determining design spill source includes a review of published databases (*see* references listed below) to establish quantitative criteria for the acceptable leakage source sizes to be considered in the design spill analysis. Failure rates of typical piping at liquefied natural gas (LNG) plants and other similar facilities are compared in these cases with the failure rates associated with design spills from containers as prescribed by the National Fire Protection Association (NFPA), NFPA 59A (2001 version), in Table 2.2.3.5.


1. DRAFT NFPA 59A 2012 edition, 2012.
2. Welker, J.R., Schorr, P.R., LNG Plant Experience Database, American Gas Association (AGA) Transmission Conference, New Orleans, May 21-23, 1979.
3. Mniszewski, K.R., Fire Protection Planning for LNG Facilities, AGA Distribution Transmission Conference, San Francisco, California, May 7-9, 1984. Development of an Improved LNG Plant Failure Rate Data Base, GRI-80/0093, 1981.

4. Pelto, P.J., Baker, E.G., et. al., Analysis of LNG Peakshaving Facility Release Prevention Systems, PNL-4153, 1982. 20111115-4001 Federal Energy Regulatory Commission PDF (Unofficial) 11/15/2011.
5. Pelto, P.J., Baker, E.G., Analysis of LNG Release Prevention Systems, PNL-SA-12278, 1984.
6. Mannan, S., Lees Loss Prevention in the Process Industries, Third Edition, Volume 3, Appendix 14.
7. Reference Manual Bevi Risk Assessments, Version 3.2, Module C, National Institute of Public Health and Environment (RIVM).
8. Guidelines for Quantitative Risk Assessment (TNO Purple Book), Committee for the Prevention of Disasters (CPR), National Institute of Public Health and the Environment (RIVM), The Netherlands Organization for Applied Scientific Research (TNO).
9. Methods for the Determination of Possible Damage (TNO Green Book), Committee for the Prevention of Disasters (CPR), National Institute of Public Health and the Environment (RIVM), The Netherlands Organization for Applied Scientific Research (TNO).
10. Methods for Determining and Processing Probabilities (TNO Red Book), Committee for the Prevention of Disasters (CPR), National Institute of Public Health and the Environment (RIVM), The Netherlands Organization for Applied Scientific Research (TNO).
11. Failure Rate and Event Data, United Kingdom Health and Safety Executive.

The application of these databases is likely to be affected by the unique circumstances of the design, construction, and installation of a PIP marine cargo transfer system, and the use of failure rates from similar structures and facilities may be required to determine a suitable design spill. The level of conservatism used in selecting the source data and performing a design spill study is critical for demonstrating compliance with the requirements in Part 193.

I hope that this information is helpful. If I can be of further assistance, please contact me at 202-366-4046.

Sincerely,



John A. Gale
Director, Office of Standards
and Rulemaking

cc: Mr. George Gehrig
Senior Vice President, Project Development

PI-11-0011

HESS LNG LLC
1185 Avenue of the Americas
New York, NY 10036

August 31, 2011

Keith Coyle, Attorney Advisor
United States Department of Transportation
Office of Chief Counsel
1200 New Jersey Avenue, SE
E26-301
Washington, DC 20590

Dear Mr. Coyle,

Hess LNG is pursuing a number of LNG development projects in the United States and abroad. We are the corporate parent of the now withdrawn Weaver's Cove Energy LLC ("Weaver's Cove", "Weaver's Cove Energy") LNG project.

On September 29, 2010, Weaver's Cove Energy filed with the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration ("PHMSA") a Petition for Findings and Approval pursuant to 49 C.F.R. §190.9. In this Petition, Weaver's Cove requested that PHMSA approve a set of design spill criteria associated with an offshore berth and pipe-in-pipe ("PIP") technology as set forth in the Petition.

In a November 1, 2010 letter to Weaver's Cove Energy, the U.S. Department of Transportation PHMSA informed Weaver's Cove that that the Petition was "improperly filed" and indicated that in the absence of an objection by Weaver's Cove, the "petition and associated materials will be treated as a request for written interpretation under 49 C.F.R. § 190.11." Weaver's Cove did not object and in fact agreed in verbal communications with PHMSA staff that the Petition would be treated as a request for written interpretation.

In a letter to the Federal Regulatory Energy Commission ("FERC") dated June 20, 2011 ("June 20 letter"), Weaver's Cove Energy informed the FERC that the company had elected to abandon the Weaver's Cove Project. Responding to this request, on July 6, 2011 FERC issued an order vacating Weaver's Cove's authorization, thus formally ending all review of Weaver's Cove's requests filed with FERC. On August 31, 2011, Weaver's Cove Energy sent a similar letter to PHMSA this time withdrawing its written request for interpretation¹.

While Hess LNG has withdrawn the Weaver's Cove Energy Project, Hess LNG is still developing a portfolio of other LNG projects around the world including certain opportunities in the United States. Some of these US based development projects are considering the use of technologies (e.g., PiP) that were the subject of Weaver's Coves now withdrawn request for interpretation. These ongoing projects would benefit from the issuance of an interpretation and the resulting increased clarity with regards to the regulatory treatment of those technologies discussed in the withdrawn request for written interpretation.

¹ This written request for interpretation is the September 29, 2010 Petition that was converted into a written request for interpretation.

Hess LNG acknowledges the significant effort that was expended by PHMSA in preparing to respond to Weaver's Cove's request for written interpretation during the two years prior to Weaver's Cove's withdrawal of that request. To take advantage of this earlier work and consistent with regulatory efficiency, Hess LNG in its own name respectfully resubmits the questions raised and the PIP design facts presented in Weaver's Cove's now withdrawn request for written interpretation recognizing that the actual geographic location of the project will not be Fall River, MA, but instead, that the facts and data will be utilized to represent a hypothetical location. Hess LNG believes that the absence of location specific data is not an encumbrance to the issuance of an interpretation as to the design spills issues sought. Hess LNG requests that an interpretation be issued by PHMSA to Hess LNG based on these well documented and studied set of facts.

Hess LNG looks forward to the written interpretation so we can apply the lessons learned about design spills for an LNG marine cargo transfer system design that includes elements located on the deck of an offshore berth platform including the riser, above ground at located at an onshore terminal, and buried segments located both below grade on land and below the mudline underwater connecting the offshore berth to an onshore facility.

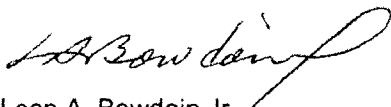
Hess LNG requests that its submittal of design and related materials filed by Weaver's Cove be used as technical support for this new hypothetical site and to enable PHMSA to build on the work previously undertaken to expedite a written interpretation with respect to design spills associated with the siting of marine cargo transfer systems utilizing such a PIP design.

All written correspondence should be directed to my attention with a copy to George (Ted) Gehrig.

Leon A. Bowdoin, Jr.
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George Gehrig
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774-488-3870

Sincerely,



Leon A. Bowdoin Jr.

Cc: Charles Helm
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