



U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

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Washington, D.C. 20590

APR 18 2011

Mr. Randall S. Rich
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RE: Request for Interpretation of 49 CFR 193.2001

Dear Mr. Rich:

On December 21, 2010, you submitted a request for written interpretation of the minimum federal safety standards for liquefied natural gas (LNG) facilities in 49 CFR Part 193. Specifically, you asked whether a proposed liquefaction and trucking facility in Brewer, Maine, would be subject to those standards under § 193.2001.

The Office of Pipeline Safety (OPS) has concluded that, if constructed as proposed, the LNG facilities described in your request would be used in the transportation of gas by pipeline and do not qualify for any of the exceptions provided in § 193.2001. Accordingly, those facilities would be subject to the minimum federal safety standards in Part 193.

Background

Your client, Maine Liquid Methane Fuels, LLC (Maine LMF or the Company), is planning to build a natural gas liquefaction and trucking facility on a 14-acre site in Brewer, Maine. As described in your letter:

[The Company] will use a multi-step process to treat natural gas received from [the Maritimes & Northeast Pipeline] and manufacture liquid methane on-demand to the specifications of end-use customers and motor fuel retailers. [Maine LMF] will treat natural gas in an amine plant that removes CO₂ and sulfur compounds from the natural gas stream. The purified natural gas then will be cooled in a heat exchanger and will pass to a separator that removes free water, before passing to a two bed mol sieve dryer that removes the remaining moisture along with C₆+ hydrocarbons. The resulting methane gas residue then will pass through refrigeration and a cold box incorporating a nitrogen refrigeration loop with two turbo expander sets to cool the feed gas in stages to a sub-cooled state to limit flash. The cold box also incorporates a fractionation column to remove the appropriate level of C₂+ constituents to meet the specific needs of individual

customers. The liquid methane will be collected in two 70,000 gallon ASME pressure vessels designed to facilitate transfer to [the Company's] trucks. The transfer is accomplished by pressure differential without penetration(s) in the tank below the liquid level. The plant will run only when offloading of fuel to trucks has been scheduled. The liquid methane manufactured at the plant will meet the needs of a diverse class of customers, including transportation fleets, industrial facilities, and institutional users. [Maine LMF] will transport the liquid methane by truck to these customers located throughout the State of Maine.

Citing these facts, you contend that the Company's facilities would not be "used in the transportation of gas by pipeline that is subject to the pipeline safety laws (49 U.S.C. 60101 et seq.) and [49 CFR] Part 192." You further contend that even if that is not the case, the Maine LMF facilities would either be "used by ultimate consumers of LNG or natural gas" or "in the course of natural gas treatment or hydrocarbon extraction which do not store LNG." Therefore, those facilities should not be subject to the minimum federal safety standards for LNG facilities in Part 193.

Analysis

Section 193.2001 states, in relevant part:

§ 193.2001 Scope of part.

- (a) This part prescribes safety standards for LNG facilities used in the transportation of gas by pipeline that is subject to the pipeline safety laws (49 U.S.C. 60101 *et seq.*) and Part 192 of this chapter.
- (b) This part does not apply to:
 - (1) LNG facilities used by ultimate consumers of LNG or natural gas.
 - (2) LNG facilities used in the course of natural gas treatment or hydrocarbon extraction which do not store LNG.
 - (3) * * *

Your first contention is that the Maine LMF facilities would not be "used in the transportation of gas by pipeline" under § 193.2001(a). In particular, you state that the Company "will not store in a liquid form gas . . . for treatment and conversion to liquid fuel[,] that it will not "regasify and reinject gas into . . . any other pipeline[,] and that "[i]t will not provide a storage service" for the upstream interstate transmission line. You also note that Maine LMF "will treat and convert gas to liquid fuel for sale only on-demand to meet the requirements of individual liquid fuel customers[,] and that its "on-site tanks are intended only to collect liquid during the brief period between manufacture and truck loading."

In your opinion, these "operations are in stark contrast to an LNG terminal that is designed to liquefy, store and regasify large quantities of LNG for peak shaving by a utility, for wholesale natural gas storage and marketing, or for pipeline balancing or other operational purposes." You believe that "such storage, regasification and reinjection of gas is the essential element of an LNG facility's 'use in the transportation of gas[,]'" and that the act of transportation in this case "ceases when [the Company] receives gas from [the operator of the interstate transmission line]."

Contrary to your assertions, OPS has consistently found that similar LNG facilities are used in the transportation of gas by pipeline. For example, in a March 10, 1995 letter of interpretation to Northern Eclipse, Inc. (Northern Eclipse), OPS concluded that a liquefaction and trucking facility would be used for such transportation, because it received natural gas from a pipeline subject to the minimum federal safety standards in Part 192.¹ Indeed, OPS explained that the arguments presented by Northern Eclipse, i.e., that it “[wa]s merely an end user of a pipeline and . . . producer of a commodity . . . transported by truck,” conceived “the jurisdiction of Part 193 too narrowly.” OPS further stated that:

Part 193 is not limited to LNG facilities that supply natural gas to pipelines. As stated in § 193.2001(a), Part 193 applies to LNG facilities used in the transportation of gas by pipeline that is subject to the regulations in 49 CFR Part 192. In general, the Part 192 regulations apply to the pipeline transportation of gas between producers and consumers. Because after liquefaction, the gas received by pipeline would still be en route to consumers, the liquefaction facility would come within the range of pipeline transportation under Part 192 and, thus, be subject to Part 193.

Likewise, in a May 16, 1997 letter of interpretation to the Arizona Corporation Commission, OPS determined that a liquefaction, storage, and truck transfer facility associated with a regulated gas transmission line would be subject to the requirements of Part 193.² In so doing, OPS stated that:

regardless of who owns or operates different sections of an LNG facility, it is subject to Part 193 in its entirety. Part 193 covers all parts of an LNG facility from the point at which it receives gas from a Part 192 regulated gas transmission pipeline through the liquefaction process, storage, and transfer into a motor carrier vehicle.³

In this case, the Maine LMF facilities would receive natural gas from a regulated interstate transmission line and convert that gas into LNG for sale and delivery to “a diverse class of customers, including transportation fleets, industrial facilities, and institutional users[,] . . . located throughout the State of Maine.” Accordingly, as in these prior letters of interpretation, OPS concludes that your client’s facilities would be used in the transportation of gas by pipeline for purposes of § 193.2001(a).

¹ PHMSA Interpretation #PI-95-008 (Mar. 10, 1995) (available at <http://www.phmsa.dot.gov/pipeline/regs/interps>).

² See Attachment.

³ By way of contrast, OPS concluded, in a May 22, 1998 letter of interpretation to Williams Field Services, that an LNG production facility and trucking operation associated with a non-jurisdictional, rural gas gathering system would not be “used in the transportation of gas by pipeline” or subject to the requirements of Part 193. PHMSA Interpretation #PI-98-005 (May 22, 1998) (available at <http://www.phmsa.dot.gov/pipeline/regs/interps>). If constructed as proposed, the Maine LMF facility would be connected to a regulated interstate gas transmission line. Therefore, the opinion rendered in that letter is not controlling in this case.

Your second contention is that the Maine LMF facilities would be “used by ultimate consumers of LNG or natural gas” and qualify for the exception provided in § 193.2001(b)(1). In particular, you state that your client’s facilities will only “be used in two ways”: (1) by its customers, who will use those facilities “to meet their fuel needs,” and by the Company itself, via a “manufacturing process that creates a distinct end-use product, liquid methane, from the natural gas it receives by pipeline.” You further state that “[t]he exclusion in § 193.2001(b)(1) appears intended to distinguish facilities such as [Maine LMF’s] plant from an LNG storage facility that stores . . . large quantities of LNG and regasifies the liquid for transmission [i]n a pipeline and resale by multiple sellers.”

During the rulemaking that led to the adoption of § 193.2001(b)(1), OPS explained that the intent of that provision was to create an exception for “an LNG facility used by the ultimate consumer of the product.”⁴ Likewise, in responding to a series of questions from a congressional committee, OPS stated that the exception in § 193.2001(b)(1), was designed for “small” facilities which are “generally located in industrial plants . . . [to] serve[] as a supply of energy or feedstock for the plant.”⁵ Unlike these examples, the Maine LMF facilities would be used to produce LNG for sale and distribution by truck, not solely for onsite consumption. Therefore, OPS concludes that your client’s facilities would not qualify for the end-user exception in § 193.2001(b)(1).

Finally, you contend that the Company’s facilities qualify for the exception in § 193.2001(b)(2) for “LNG facilities used in the course of natural gas treatment or hydrocarbon extraction which do not store LNG.” In particular, you state that Maine LMF “is in essence a processor of gas,” i.e., “[i]t will treat and purify natural gas and extract a high-quality liquid methane fuel from the gas stream.” You further state that the Company “will not store LNG” at the plant, “but will load the liquid fuel a short time after liquefaction into waiting trucks.” According to your letter, “there is little difference between [the aforementioned] process and the . . . treat[ment] . . . and cryogenic[] separat[ion] of propane, butane and other marketable hydrocarbons from natural gas,” an activity which, you believe, falls within the § 193.2001(b)(2) exception.

In proposing to adopt § 193.2001(b)(2), OPS explained that this exception was designed for the “large number of refinery-type plants which use lower temperature processes.”⁶ OPS offered a similar explanation in responding to questions from a congressional committee, i.e., that the exception covered facilities “generally located in refinery-type plants near places of hydrocarbon

⁴ LNG Facilities; Federal Safety Standards, Development of New Standards, 44 Fed. Reg. 8142, 8147 (Feb. 8, 1979).

⁵ *To Improve the Protections Afforded the Public Against Risks Associated with the Transportation of Hazardous Commodities by Pipeline: Hearings Before the Comm. on Commerce, Science, and Transportation*, S. 411, 96th Cong. 24 (1979).

⁶ 44 Fed. Reg. at 8147.

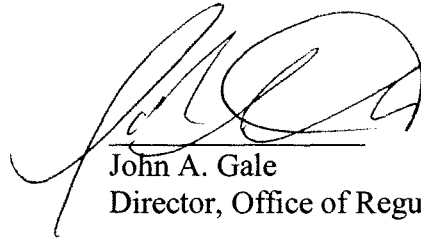
extraction where most processing occurs.”⁷ Your client is not proposing to construct a refinery-type plant in this case, and OPS concluded, in the March 10, 1995 letter of interpretation to Northern Eclipse, that an analogous liquefaction and trucking facility was not involved in natural gas treatment and hydrocarbon extraction. As you have offered no grounds for distinguishing these authorities, OPS concludes that the Maine LMF facilities would not qualify for the exception in § 193.2001(b)(2).

While not among the questions presented in your request, it should be noted in closing that the Maine Public Utilities Commission (MPUC) has a current PHMSA certification to regulate intrastate LNG facilities.⁸ Thus, if the Maine LMF facilities are not subject to the jurisdiction of the Federal Energy Regulatory Commission,⁹ the MPUC would be responsible for ensuring that they comply with the minimum federal safety standards in Part 193, as well as any additional state standards established under 49 U.S.C. § 60104(c).

Conclusion

OPS concludes that the Maine LNG facilities would be used in the transportation of gas by pipeline and do not qualify for any of the exceptions provided in § 193.2001. Accordingly, if constructed as proposed, those facilities would be subject to the minimum federal safety standards in Part 193.

Sincerely,



John A. Gale
Director, Office of Regulations

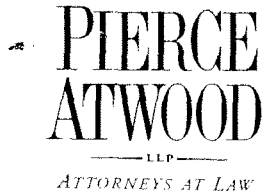
Enclosure

CERTIFIED MAIL – RETURN RECEIPT REQUESTED [7005 1160 0001 0075 0449]

⁷ *To Improve the Protections Afforded the Public Against Risks Associated with the Transportation of Hazardous Commodities by Pipeline: Hearings Before the Comm. on Commerce, Science, and Transportation*, S. 411, 96th Cong. 24 (1979).

⁸ 49 U.S.C. § 60105; see http://www.maine.gov/mpuc/legislative/rules/part4-natural_gas.shtml (last accessed Feb. 21, 2011).

⁹ 49 U.S.C. § 60101(a)(6) and (9) (defining interstate and intrastate gas pipeline facility for purposes of the Pipeline Safety Laws).



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December 21, 2010

John Gale, Director, Standards and Rulemaking Division
Office of Pipeline Safety (PHP-30)
Pipeline and Hazardous Materials Safety Administration
US Department of Transportation
1200 New Jersey Avenue SE
Washington, DC 20590-0001

Re: Request for Interpretation

Dear Sir:

Maine Liquid Methane Fuels, LLC (MLMF) respectfully submits this Request for Interpretation from the Pipeline and Hazardous Materials Safety Administration (PHMSA) Office of Pipeline Safety pursuant to 49 C.F.R. § 190.11(b), for a finding that its planned liquid methane manufacturing facility in Brewer, Maine would not be subject to PHMSA's jurisdiction under 49 C.F.R. Part 193. As described in greater detail below, MLMF believes that its proposed facility is not the type of liquefied natural gas (LNG) facility addressed in 49 C.F.R. Part 193. MLMF's plant will not be "used in the transportation of gas." Its facilities will not be used by an interstate pipeline or in conjunction with interstate natural gas transportation services. MLMF will treat and extract hydrocarbon products from the gas stream and convert treated natural gas to an end use product, liquid methane fuel. MLMF will not store such fuel, but will operate its plant only as required to fill specific orders from ultimate consumers and motor fuel retailers based on trucking schedules. The fuel will not be regasified and redelivered into the interstate pipeline grid. Accordingly, MLMF seeks an interpretation that Part 193 does not apply to its facility under 49 C.F.R. §§ 193.2001(a) or (b)(1) and (2).

I. Background

MLMF is a Delaware limited liability corporation that plans to introduce alternative fuels to areas, consumers, and industries in the interior of Maine that currently rely almost exclusively on petroleum-based fuels. MLMF is not affiliated with an interstate natural gas pipeline. By diversifying the available fuel sources, MLMF hopes to allow businesses in the region to compete with national and global competition. Its founder and President, Chris Hosford, brings 37 years of experience in the LNG industry, including the construction of similar operations in

California and Alaska. Mr. Hosford's company, CHI Engineering Services, Inc., is responsible for designing, developing, operating and maintaining LNG facilities.

II. Facts

MLMF is currently in the permitting and construction phase of a natural gas treatment and hydrocarbon extraction facility used to manufacture liquid methane to be built on a 14-acre site in Brewer, Maine. MLMF will receive natural gas through a new 500 foot, six-inch lateral pipeline to be owned and operated by Maritimes & Northeast Pipeline (M&NE) connecting M&NE's mainline transmission system to MLMF's plant. (MLMF will own pressure regulation and odorant injection facilities if such facilities are required as well as a custody transfer isolation valve and cathodic protection and grounding for its facilities.) M&NE's lateral will be subject to the Federal Energy Regulatory Commission's jurisdiction under the Natural Gas Act.

MLMF will use a multi-step process to treat natural gas received from M&NE and manufacture liquid methane on-demand to the specifications of end-use customers and motor fuel retailers. MLMF will treat natural gas in an amine plant that removes CO₂ and sulfur compounds from the natural gas stream. The purified natural gas then will be cooled in a heat exchanger and will pass to a separator that removes free water, before passing to a two bed mol sieve dryer that removes the remaining moisture along with C6+ hydrocarbons. The resulting methane gas residue then will pass through refrigeration and a cold box incorporating a nitrogen refrigeration loop with two turbo expander sets to cool the feed gas in stages to a sub-cooled state to limit flash. The cold box also incorporates a fractionation column to remove the appropriate level of C2+ constituents to meet the specific needs of individual customers. The liquid methane will be collected in two 70,000 gallon ASME pressure vessels designed to facilitate transfer to MLMF's trucks. The transfer is accomplished by pressure differential without penetration(s) in the tank below the liquid level. The plant will run only when offloading of fuel to trucks has been scheduled. The liquid methane manufactured at the plant will meet the needs of a diverse class of customers, including transportation fleets, industrial facilities, and institutional users. MLMF will transport the liquid methane by truck to these customers located throughout the State of Maine.

MLMF will meet 100 percent of its electric needs by two 5 MW engine-generators sets with waste heat recovery, and will maintain a 1 MW diesel generator for stand-by power. The plant will not be connected to the utility grid.

MLMF's facility is located on a 14 acre site in a remote, industrial area of Brewer, Maine. The project has received land-use approval and support from the Brewer city government and the Brewer fire department. MLMF has received a Site Location of Development (SLOD) permit from the Maine Department of Environmental Protection (MDEP) and a Natural Resources Protection Act (NPRA) permit from the U.S. Army Corps of Engineers. An MDEP air permit is pending approval. The facility complies with industry safety requirements. The amine plant and

boil-off compression will be housed in a classified building with a fire wall to the non-hazardous area. The refrigeration and cold box will be housed in a non-hazardous building with instrument air compressor, nitrogen generator, and MCC. The liquid methane truck filling station is configured for spill control and features a 10,000 gallon spill pump with Corning Foamglas vapor control, a manual air operated sump pump, and water/glycol hydronic heat for snow removal. The facility meets all of the requirements for thermal radiation and flammable vapor exclusions zones. MLMF will control boil-off by sub-cooling liquid methane in the cold box, and the vapor from the LMF transfer operations will be compressed and consumed as fuel gas for electric power generation.

III. Request for Interpretation

By this request, MLMF seeks an interpretation that its facility is not subject to PHMSA's Part 193 regulations for liquefied natural gas facilities. By its terms, 49 C.F.R Part 193 applies only to LNG facilities "used in the transportation of gas by pipeline that is subject to the pipeline safety laws (49 U.S.C. 60101 *et seq.*) and Part 192 of this chapter." 49 C.F.R. § 193.2001(a). Further, § 193.2001(b) provides express exclusions from jurisdiction for LNG facilities (1) used by ultimate consumers of LNG or natural gas and (2) used in the course of natural gas treatment or hydrocarbon extraction which do not store LNG.

A. MLMF's Facilities Are Not Used for Transportation

Although MLMF will receive gas from a pipeline that is subject to the pipeline safety laws, the facility itself will not be "used in the transportation of gas." MLMF will not store in a liquid form gas received from M&NE for treatment and conversion to liquid fuel. Nor will MLMF regasify and reinject gas into M&NE or any other pipeline. It will not provide a storage service to shippers on M&NE in connection with M&NE's transportation service. MLMF's liquid methane customers will not ship or hold title to natural gas transported on M&NE or purchase a liquefaction service from MLMF. MLMF will treat and convert gas to liquid fuel for sale only on-demand to meet the requirements of individual liquid fuel customers. The limited on-site tanks are intended only to collect liquid during the brief period between manufacture and truck loading.

MLMF's operations are in stark contrast to an LNG terminal that is designed to liquefy, store and regasify large quantities of LNG for peak shaving by a utility, for wholesale natural gas storage and marketing, or for pipeline balancing or other operational purposes. Such facilities provide a service, not a product. They typically store and regasify LNG for reinjection into the interstate pipeline for further transportation. MLMF submits that such storage, regasification and reinjection of gas is the essential element of an LNG facility's "use in the transportation of gas."

In MLMF's project, transportation of gas ceases when MLMF receives gas from M&NE. MLMF will manufacture a liquid fuel that is a different product from the natural gas transported by M&NE. MLMF will not store, regasify or transport gas; it only will manufacture and ship liquid fuel by truck.

B. MLMF's Facilities Are Used by Ultimate Consumers of LNG; MLMF is an Ultimate Consumer of Natural Gas

Section 193.2001(b)(1) of the regulations provides that Part 193 does not apply to "LNG facilities used by ultimate consumers of LNG or natural gas." MLMF's facilities will be used in two ways. MLMF's customers that are ultimate consumers of the liquid methane produced in the plant use the facility to meet their fuel needs. MLMF will only sell and transport liquid fuel by truck to ultimate consumers or to motor fuel retailers. Further, MLMF itself will be an ultimate consumer of natural gas. MLMF's manufacturing process creates a distinct end-use product, liquid methane, from the natural gas it receives by pipeline. The market value of that product is not determined by the market price of natural gas, but rather by the market price of No. 6 fuel oil and diesel motor fuel. MLMF consumes the gas by converting it to a liquid fuel. The exclusion in §193.2001(b)(1) appears intended to distinguish facilities such as MLMF's plant from an LNG storage facility that stores liquid large quantities of LNG and regasifies the liquid for transmission on a pipeline and resale by multiple resellers.

C. MLMF Is Engaged in Treatment of Natural Gas and Extraction of Liquid Hydrocarbons; MLMF Does Not Store LNG

Section 193.2001(b)(2) of the regulations provides that Part 193 does not apply to LNG facilities used in the course of natural gas treatment or hydrocarbon extraction which do not store LNG. MLMF is in essence a processor of gas. It will treat and purify natural gas and extract a high-quality liquid methane fuel from the gas stream. As explained above, MLMF will not store LNG, but will load the liquid fuel a short time after liquefaction into waiting trucks. Other than the absence of a residue gas stream at MLMF's plant, there is little difference between MLMF's process and the process of treating gas and cryogenically separating propane, butane and other marketable hydrocarbons from natural gas. Gas processing operations are excluded from Part 193 and MLMF should be considered to be a processor that treats natural gas and extracts liquids, but does not store liquid methane fuel.

PHMSA

December 21, 2010

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IV. Correspondence

All correspondence and communication with respect to this Request for Interpretation should be addressed to:

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V. Conclusion

For the reasons stated above, MLMF respectfully requests that the Office of Pipeline Safety issue an interpretation finding that MLMF's proposed liquid methane facility in Brewer, Maine will not be subject to its regulations regarding LNG facilities, 49 C.F.R. Part 193. MLMF recognizes that the response to this request for interpretation will be limited to the facts as set forth herein.

Thank you for your attention to this matter. Please contact the undersigned if you have any questions or require further information.

Very truly yours,

Pierce Atwood LLP



Randall S. Rich
Attorney for
Maine Liquid Methane Fuels, LLC

cc: Chris Hosford
Sasa Cook
Maine Liquid Methane Fuels, LLC