



U.S. Department
of Transportation

1200 New Jersey Avenue, SE
Washington, DC 20590

**Pipeline and Hazardous
Materials Safety Administration**

June 15, 2020

Mr. Jerry Korhonen
Director of Pipeline Compliance
THUMS Long Beach Company c/o
California Resources Corporation
900 Old River Road
Bakersfield, CA 93311

Dear Mr. Korhonen:

In a December 13, 2019, letter to the Pipeline and Hazardous Materials Safety Administration (PHMSA), you requested an interpretation of 49 Code of Federal Regulations (CFR) Part 195 (Request). Specifically, you requested an interpretation regarding the applicability of § 195.1(b)(5). On April 23, 2020 PHMSA responded to THUMS and requested additional information from the company regarding its operations. On May 11, 2020, THUMS provided additional requested information to PHMSA (Response).

In your Request and Response, you stated that THUMS Long Beach Company has nine subsea pipelines that transport a multi-phase crude oil, natural gas, and water mix from four man-made oil production islands located in Long Beach Harbor within California State waters to onshore facilities. You also stated that the fluids coming up from the wells contain approximately 2% oil and the remainder is water and some entrained gases and solids. You further stated that there is gross separation of oil and water on the islands that is accomplished by gravity separation in the Free Water Knock-Out (FWKO) vessel located on the islands. Finally, you explained in your Response that the bulk water removal at the islands is necessary for two purposes: 1) re-injection into the reservoir for pressure maintenance of the formation; and 2) State and City-mandated subsidence control. In your Request, you noted that after bulk water separation on each island, the composition of the fluid stream transported to shore within the subsea pipelines is between 25-30% crude oil with maximum crude oil concentration of 30-40%, and that the multiphase fluid undergoes final separation, processing, and dehydration at THUMS's Pier J facilities to yield sales-quality crude oil.

In your Request, THUMS asked PHMSA if the exception under § 195.1(b)(5) applies to the nine subsea pipelines between the islands and the Pier J facilities.

Section 195.1(b)(5) exempts the following pipelines from Part 195 requirements:

“[t]ransportation of hazardous liquid or carbon dioxide in an offshore pipeline in state waters where the pipeline is located upstream from the outlet flange of the following farthest

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downstream facility: The facility where hydrocarbons or carbon dioxide are produced or the facility where produced hydrocarbons or carbon dioxide are first separated, dehydrated, or otherwise processed.” The exception is narrow, and applies only if the following factors are met: (1) the transportation of hazardous liquid or carbon dioxide; (2) in an offshore pipeline in state waters; and (3) the segment is located upstream from the outlet flange of the farthest downstream facility, either where hydrocarbons or carbon dioxide are produced, or the facility where produced hydrocarbons or carbon dioxide are first separated, dehydrated, or otherwise processed. There is no dispute that the first and second prongs to the exception are met. The third prong requires an analysis of whether the point of “first separation” occurs on the four islands where water is removed from the product.

It is undisputed that water is removed from the product on the islands where it is produced. For the exception to apply, this removal must not constitute “first separation” under the regulation. PHMSA has consistently interpreted this regulation to apply only where the initial separation is performed exclusively for the purpose of enhancing or assisting production operations, such as through reinjection for gas lift, or to provide power to the production platform instruments or equipment.¹ PHMSA has never interpreted this exception to apply where the separation is being performed for any purpose not solely related to production operations.

In the case of THUMS, there is bulk water separation at the four islands, resulting in an increase of fluid oil content from approximately 2% to 25-30% crude oil composition. This separation is not minor, nor is it being performed only to assist production operations. Instead, it is being performed for pressure maintenance of the formation and to comply with state and local mandates. Additional processing at the Pier J facilities does not alter the fact that at this location the pipeline already carries a commodity that has been initially separated at an upstream facility, regardless of the fact that it is not considered sales-quality crude. Therefore, the bulk water separation occurring on the four islands constitutes “first separation” for purposes of the regulation, and therefore, the nine pipelines from the outlet flange of the four islands to the Pier J facilities would not fall under the § 195.1(b)(5) exception.

¹ See e.g., PHMSA Letter of Interpretation to L.G. Otteman – Offshore Operators Committee, No. PI-79-025 (Aug. 2, 1979) (“The separation to which Sections 192.1 and 195.1 refer is a type of processing of hydrocarbons for purposes of their further transportation by pipelines. This type of processing does not include separation of minor amounts of gas exclusively for the purpose of running instruments or equipment.”).

In sum, the nine transportation-related pipelines moving hydrocarbons from the four offshore production islands to the onshore facilities for further processing are subject to Part 195 regulations.²

If we can be of further assistance, please contact Tewabe Asebe at 202-366-5523.

Sincerely,

John A. Gale
Director, Office of Standards
and Rulemaking

² Despite THUMS's classification of these lines as production lines, these lines are engaged in transportation. Even if § 195.1(b)(5) applied, which it does not, these nine pipelines would be subject to PHMSA's jurisdiction. Section 195.2 defines production facility as "piping or equipment used in the production, extraction, recovery, lifting, stabilization, separation or treating of petroleum or carbon dioxide, or associated storage or measurement." As explained in THUMS's Request and Response, the FWKOs on each island and subsequent reinjection is being used for more than just petroleum production. In this case, reinjection is also being used to control subsidence of the surrounding ground surface, including the local infrastructure and buildings, and waterflood optimization. Further, there is also a geographic limit to what can be considered a production facility. Section 12 of the Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 (49 U.S.C. § 60101 *et seq.*) notes that "the term 'transportation-related oil flow line' means a pipeline transporting oil off of the grounds of the well where it originated and across areas not owned by the producer, regardless of the extent to which the oil has been processed, if at all." Based on this definition, and the fact that reinjection is being used for more than production purposes, the nine subsea lines are all engaged in transportation and fall under the jurisdiction of the U.S. Department of Transportation as authorized by 49 U.S.C. § 60101 *et seq.*

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THUMS LONG BEACH COMPANY

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CORRESPONDENCE P.O. Box 2900, Long Beach, California 90801-2900

December 13, 2019

Alan K. Mayberry
Associate Administrator for Pipeline Safety
Pipeline and Hazardous Materials Safety Administration (PHMSA)
1200 New Jersey Ave, SE., East Building
Washington, DC 20590

Re: THUMS Long Beach Company (OPID 19410) – Request for Jurisdictional Applicability Review of THUMS Subsea Gross Production Liquid Pipelines from Production Islands

Dear Mr. Mayberry:

THUMS Long Beach Company (OPID 19410), located at 1 World Trade Center, Suite 1500, Long Beach, CA 90831, requests a 49 CFR Part 195.1 jurisdictional applicability review for the nine (9) subsea gross production liquid pipelines associated with operations of the four (4) man-made production islands located in Long Beach Harbor.

THUMS Long Beach Company serves as the field contractor and partner for the production islands and associated subsea pipelines under a production sharing agreement with the State of California, the primary mineral owner, and the City of Long Beach, the field operator and owner of the production islands and associated facilities.

As detailed within the attachment to this letter, gross production from the multiple wells located on each of the production islands is comingled and transported for processing and dehydration within the onshore Pier J facilities to yield sales quality crude oil.

Only gross separation of bulk water occurs on each island. Immediate bulk water removal at the islands is necessary due to the requirement of the THUMS waterflood operation for re-injection into the reservoir for pressure maintenance of the formation and for subsidence mitigation. The fluids coming up from the wells contain only about 2% oil, with the balance being water and some entrained gases and solids. After the bulk water separation on each island, the composition of the fluid stream within the subsea pipelines is typically just 25-30% crude oil, with the balance being water and some remaining entrained gases.

Other than the preliminary water removal described above, all water separation, dehydration, and crude oil processing occurs within the THUMS onshore Pier J Facility. A key point of information is there are no dehydration operations occurring at any of the four (4) production islands.



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The specific jurisdictional applicability review question for the nine (9) subsea gross production liquid pipelines (listed below) is whether the exemption listed under 49 CFR 195.1(b)(5) is applicable to this specific operational configuration.

Line	Description	Nominal Diameter	Length (miles)	MOP (psig)	% SMYS at MOP	Low Stress	Gravity Line	Rural	Cross NPMS Defined Commercially Navigable Waterway	U.S. Coast Guard Jurisdiction
CW-2	Island Chaffee to Island White	8"	1.53	400	15.31%	YES	NO	NO	NO	NO
CW-7	Island Chaffee to Island White	8"	1.53	400	15.31%	YES	NO	NO	NO	NO
FW-2	Island Freeman to Island White	8"	0.75	400	15.31%	YES	NO	NO	NO	NO
FW-3	Island Freeman to Island White	6"	0.75	400	13.52%	YES	NO	NO	NO	NO
FW-5	Island Freeman to Island White	6"	0.75	400	13.52%	YES	NO	NO	NO	NO
WG-2R	Island White to Island Grissom	12"	1.60	400	14.57%	YES	NO	NO	NO	NO
WG-4	Island White to Island Grissom	12"	1.60	400	19.43%	YES	NO	NO	NO	NO
GJ-2	Island Grissom to Onshore Pier J	12"	1.15	400	19.43%	YES	NO	NO	YES	NO
GJ-6	Island Grissom to Onshore Pier J	12"	1.15	400	19.43%	YES	NO	NO	YES	NO

The THUMS production islands and the associated subsea pipelines are located within California state waters and, as stated above, only bulk water removal is occurring on the islands because immediate water re-injection is required for formation waterflood and subsidence mitigation.

- The composition of the gross production fluids in these nine (9) subsea liquid pipelines typically contains only 25-30% crude oil, with water comprising the remaining 70-75% of the gross production fluids.
- The maximum crude oil concentration found within any of these nine (9) subsea liquid pipelines is 30-40% oil, with water comprising the remaining 60-70% of the gross production fluids.

The conclusion reached by THUMS, with the City of Long Beach’s concurrence, is that exemption 49 CFR 195.1(b)(5) is applicable as bulk water removal on each of the THUMS production islands for immediate re-injection into the formation is not considered to be a “processing” step for this specific and unique configuration.

- The separation, dehydration, and processing steps referenced within 49 CFR 195.1(b)(5) occur within the THUMS onshore Pier J facility.
- The sales grade crude oil pipelines downstream of the Pier J Facility (to the J6 Breakout Tanks and from the J6 Breakout Tanks to downstream third-party crude oil pipelines located at the THUMS Broadway & Mitchell (B&M) Facility) are jurisdictional under 49 CFR 195, but the upstream nine (9) subsea gross production liquid pipelines from the four (4) THUMS production islands should be exempt from 49 CFR Part 195 requirements.

EXEMPTION:

“195.1(b)(5) Transportation of hazardous liquid or carbon dioxide in an offshore pipeline in state waters where the pipeline is located upstream from the outlet flange of the following farthest downstream facility: The facility where hydrocarbons or carbon dioxide are produced or the facility where produced hydrocarbons or carbon dioxide are first separated, dehydrated, or otherwise processed; ...”



A subsidiary of California Resources Corporation



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Please feel free to contact me by either telephone or email as listed below if you have any questions or need any additional information on this request for jurisdictional applicability review.

Sincerely,

A handwritten signature in black ink, appearing to read "Jerry Korhonen", written over a horizontal line.

Jerry Korhonen
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Bakersfield, CA 93311
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ATTACHMENT: THUMS Crude Oil Processing - Details