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

1200 New Jersey Ave, S.E.
Washington, D.C. 20590

MAR 1 1 2015

Mr. J. Patrick Foley
Senior Vice President
Caelus Energy Alaska LLC
3700 Centerpoint Drive, Suite 500
Anchorage, AL 99503

Dear Mr. Foley:

In a letter to the Pipeline and Hazardous Materials Safety Administration (PHMSA) dated December 5, 2014, Caelus Energy Alaska LLC (Caelus) requested an interpretation of the applicability of the hazardous liquid pipeline safety regulations to a 2-inch diesel fuel line that Caelus operates in connection with the Oooguruk oil field offshore of the North Slope of Alaska. You stated that 49 CFR 195.1(b)(5) exempts certain offshore pipelines from PHMSA regulation where the pipeline is located in state waters upstream from the farthest downstream facility where produced hydrocarbons are first processed and requested PHMSA's interpretation whether this exemption is applicable to Caelus' 2-inch diesel line.

You stated Caelus has constructed a gravel island in the shallow waters of the Beaufort Sea on which it operates a drill site and production equipment. The island is located in state waters near a state-owned island known as Thetis Island, and the coastline within Harrison Bay. Caelus also operates an onshore tie-in pad which provides an onshore base of operations and logistical support for the offshore production operations. Caelus does not own and operate its own processing facilities on the island but instead, contracts to have its produced fluids processed onshore at the Kuparuk River Unit (KRU) processing facilities.

You stated that the 2-inch diameter diesel pipeline is bundled with three other pipelines including the crude oil pipelines inside a 16-inch outer diameter conductor pipe. This pipe-within-a-pipe is encased in concrete. Unlike the crude oil pipeline that transports crude from the production facilities on the gravel island to the KRU processing facilities, the diesel line transports diesel fuel in the opposite direction out to the production facility on the gravel island to power the drill rig and carries base oil used to make drilling mud.

You noted that the regulatory exemption established in § 195.1(b)(5) applies to pipelines that: (i) transport hazardous liquid or carbon dioxide; (ii) are situated offshore in state waters; and (iii) are located upstream of the outlet flange of the farthest downstream facility. You pointed out that the diesel pipeline is located upstream of the KRU facility and expressed the view that because Caelus' diesel line meets these criteria it should qualify for the exemption.

Section 195.1(b)(5) states, in relevant part:

> §195.1 Which pipelines are covered by this Part?
> (a)…
> (b) Excepted. This Part does not apply to any of the following:
> (1)…
> (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;

Based on the information you provided, Caelus' conclusion that the exemption in § 195.1(b)(5) applies to its 2-inch diesel line appears to be incorrect. In this case, the diesel pipeline is not transporting produced liquids downstream for processing, but is transporting finished diesel fuel that was already in the stream of regulated transportation out to a production facility to be used as an energy source for production. The gravel island is not the facility where the diesel fuel was produced. Therefore, the 2-inch diesel pipeline is regulated under § 195.1(a)(2) because it transports processed petroleum products to the gravel island where they will be consumed.

Please note that this response to your December 5, 2014, request reflects PHMSA's initial determination of the applicability of the Part 195 regulations based on the limited information in your description of the facilities in your letter and is subject to further consideration if any additional information about the facility would be relevant to this determination.

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

Sincerely,

John A. Gale
Director, Office of Standards
and Rulemaking

J. Patrick Foley
SVP, Caelus Natural Resources Alaska, LLC
pat.foley@caelusenergy.com
Direct: 907-343-2110

December 5, 2014

Jeffrey Wiese, Associate Administrator
c/o Office of Pipeline Safety (PHP-30)
PHMSA, U.S. Dept. of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590-0001

Re: Request for Written Regulatory Interpretation under 49 C.F.R. § 190.11

Dear Mr. Wiese:

We are writing to request a written regulatory interpretation pursuant to 49 C.F.R. § 190.11. Caelus Energy Alaska LLC. ("Caelus") seeks an interpretation of the Pipeline and Hazardous Materials Safety Administration ("PHMSA") regulation at 49 C.F.R. § 195.1(b)(5) as it applies to a 2-inch diesel fuel line Caelus operates in connection with the Oooguruk oil field offshore of the North Slope of Alaska.

The provisions of 49 C.F.R. § 195.1(b)(5) specify that certain offshore pipelines are exempt from PHMSA jurisdiction where the pipeline is located in state waters "upstream from" the "farthest downstream facility":

> 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.

Through this request, for the reasons detailed below, Caelus seeks PHMSA's concurrence that the above exemption is applicable to Caelus' 2-inch diesel line.

I. FACTUAL CONTEXT

The State of Alaska oil and gas leases comprising the Oooguruk oil field include both onshore and offshore lands. Caelus operates a gravel island in the shallow waters of the Beaufort Sea from which it operates a drill site and production equipment. The island is located in state waters between a State-owned island known as Thetis Island and the coastline, within Harrison Bay. Caelus also operates an onshore tie-in pad (the "OTP") which provides an onshore base of

operations and logistical support for the offshore production operations. Caelus does not own and operate its own processing facilities and instead contracts to have its produced fluids processed at the Kuparuk River Unit ("KRU") processing facilities.

Crude oil is produced from wells drilled from the offshore gravel island. The produced fluids are transported via a production pipeline to the OTP where they are transferred to KRU pipelines and transported to the KRU central processing facilities ("CPF"). Once delivered to the KRU CPF, the fluids are processed to separate the oil component and create sales quality crude oil for subsequent transport through the Trans-Alaska Pipeline System.

Caelus operates a bundle of four pipelines between the OTP and the offshore island. The produced fluids pipeline is 12 inches in diameter inside of a 16-inch outer diameter conductor pipe. Bundled with this produced fluid pipeline are three other smaller lines: an 8-inch diameter water injection line (which is encased in concrete), a 6-inch diameter gas injection line, and the 2-inch diameter diesel line that is at issue in this request. The diesel line is used to batch-transport diesel and mineral oil products from the OTP to the offshore drill site. All four lines are bundled together in a robust special webstrapping material and secured externally with a series of locking turnbuckles. Internally, the four bundled lines are buffered and protected by high strength polymers to eliminate friction and ensure pipeline integrity.

The bundled lines traverse approximately 8 miles between the OTP and the offshore island drill site. Approximatley 2.5 miles are onshore and the remaining 5.5 miles are offshore. *See* attached map marked "Figure 1". The bundle is buried in a trench 6 feet below the sea floor. The trench was backfilled with protective and native material to prevent damage to the bundled pipelines.

The produced fluids line carries a combined stream of oil, gas, and water from the offshore production site to the OTP for transfer and processing. The gas injection line and water line carry natural gas and water respectively, which are injected for enhanced oil recovery. The diesel line delivers fuel to power the drill rig and for use as a freeze-protection fluid and carries base oil used to make drilling fluids. The pipelines were constructed in early 2007 and put into service later that year.

II. PHMSA JURISDICTIONAL EXEMPTION

As addressed in Subsection II.A below, Caelus' diesel pipeline qualifies for the PHMSA jurisdictional exemption established in 49 C.F.R. § 195.1(b)(5). In addition, while not controlling of the correct interpretation, as addressed in Subsection II.B below, application of a jurisdictional exemption in this instance nevertheless ensures continued safe pipeline operations in a protective environment and is consistent with other public policies underlying PHMSA's regulations.

A. Caelus' Diesel Pipeline Qualifies For A Jurisdictional Exemption

The regulatory exemption established in 49 C.F.R. § 195.1(b)(5) applies to pipelines that: (i) transport hazardous liquid or carbon dioxide; (ii) are situated offshore in state waters; and (iii) are located upstream of the outlet flange of the farthest downstream facility. The subject pipeline transports diesel, which qualifies as a "hazardous liquid." Moreover, the subject pipeline is located offshore entirely within state (State of Alaska) waters.[1] Accordingly, application of the jurisdictional exemption in this instance turns on whether the pipeline is located "upstream" of the farthest downstream facility.

The term "upstream" is not defined in PHMSA's regulations. Generally, in the oil and gas industry, major operations are divided into upstream and downstream components. *See generally* Patrick H. Martin and Bruce M. Kramer, Williams & Meyers, Manual of Oil and Gas Terms, "downstream" and "upstream". "Upstream" refers to operations before a point of reference or closer to the source (a given reservoir), particularly exploration and production operations. Downstream refers to operations after a given point of reference, often used to describe post-production processes such as refining and processing. *Id.* Accordingly, operationally, "upstream" means toward the source and away from "downstream" processing. Directionally, in terms of movement of a material rather than a process, "upstream" means to move against the current (i.e., in the opposite direction from the natural flow of a stream of water or other substance). The term "farthest downstream facility" is defined specifically in 49 C.F.R. § 195.1(b)(5) as 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."

In the present instance, Caelus' 2-inch diesel pipeline transports diesel and base oil for drilling muds from the OTP, where produced hydrocarbons are transferred prior to processing, *upstream* from the manmade gravel island drilling platform located in offshore state waters. In this configuration, the "farthest downstream facility" located in the production process is, as a factual matter, the KRU CPF, the facility where produced hydrocarbons are first separated, dehydrated and processed. Accordingly, if viewed operationally, the diesel pipeline is located "upstream" in the production process from the KRU facility (the "furthest downstream facility"). Similarly, if viewed directionally, the diesel flows "upstream" against the current of the produced oil toward the production source. Accordingly, although the term "upstream" is undefined and the "farthest downstream facility" definition provides alternative choices, under all applications of these terms

[1] The limit of state waters in this area was determined to be three miles from the coastline and three miles from offshore islands by the U.S. Supreme Court in *United States v. Alaska*, No. 84 Original, 521 U.S. 1 (see discussion in Michael W. Reed, *Shore and Sea Boundaries, Volume 3* at pp. 144-151). Because Thetis Island is less than 6 miles from the coastline, the entire area between the coastline and Thetis Island is state water.

to the Oooguruk facilities, Caelus' diesel line transports a hazardous liquid, offshore in state waters, through a pipeline that is located upstream of the farthest downstream facility. As such, Caelus' diesel line meets all of the criteria for the jurisdictional exemption provided in 49 C.F.R. § 195.1(b)(5).

B. The Diesel Pipeline Is Safely Designed And Operated In A Low Risk And Remote Environment

Although the relevant analysis provided in Section II.A is controlling, given PHMSA's mission to protect people and the environment from the risks of hazardous materials transportation, it bears emphasis that the diesel pipeline at issue here is designed and operated for maximum safety, and is located in a very remote location where the potential for human exposure geographically constrained and the need for public awareness is very limited.

1. Safe pipeline design and operation

Caelus' diesel pipeline is buried in a 6-foot deep trench beneath the seafloor which is backfilled with protective and native material. Other safety features include an anode bracelet system that provides cathodic protection and a fiber optic cable installed in the bundle that detects movement and temperature changes that would indicate leaks.

Caelus' operating and inspection practices further ensure the safety and integrity of the pipeline. It is used intermittently to deliver diesel to the offshore gravel island drill site and is pressure tested after each batch transfer of diesel. The small sections of pipeline at either end that are aboveground to connect with other facilities are marked and protected with barriers to prevent accidental vehicle collisions. The cathodic protection system is inspected annually at the exposed ends of the pipeline. In addition, annual bathymetric surveys are completed along the length of the pipeline to check for scour by ocean currents or ice.

The pipeline has a track record of safe operations. It has been in service since 2007 with no reported incidents of any kind.

2. Remote and low risk environment

The pipeline is also located in a very low risk environment. There are no nearby communities, residents, or inhabitants other than the small isolated oil field camps for oil field employees at either end of the line. At its closest point, the nearest Alaska Native village (Nuiqsut) is approximately 25 miles inland and southwest from the nearest portion of the pipeline. Accordingly, although in the broadest possible sense, the pipeline resides within an expansive subsistence use area of the Beaufort Sea offshore, the location of the pipeline is remote, very small in scale and at all times inaccessible to the public. Indeed, there is virtually no "public" in the area to educate—no affected municipalities, school districts, businesses or residents.

The location of the pipeline in a buried offshore trench in shallow water is an additional very significant source of separation between the pipeline and human or animal activities, and associated reduced risk. The depth of the buried bundle protects the pipelines from contact with vessels, anchors, and grounded sea ice which could damage the pipelines. Moreover, the shallow water depths of less than six feet prevent large vessels from navigating the area during the open water season, and the presence of ice prevents all navigation for approximately nine months of the year. Caelus estimates that 99% of the vessel traffic in the area during the brief open water season are Caelus vessels related to its oilfield operations.

Finally, offshore excavation activities in the vicinity of the pipeline could occur only after extended federal and state public notice and permitting processes (*i.e.*, at a minimum, pursuant to a state right-of-way grant, a federal Clean Water Act § 404 permit from the U.S. Army Corps of Engineers, and a federal ocean dumping permit from the U.S. EPA, along with NEPA environmental impact analysis). These processes ensure beyond any question that no unanticipated activities that may be incompatible with the pipeline presence and use could occur, and that no excavation that might damage or compromise the existing pipeline could be proposed, approved or initiated without establishing appropriate measures for mitigation and protection. Because the pipeline is part of oilfield operations, it is further subject to other state and federal safety regulations, including reporting requirements, emergency response, integrity protection, and leak detection requirements (*see generally* AS 46.04.030; 11 AAC 75.005 – 11 AAC 75).

In sum, Caelus' diesel pipeline has been constructed in an extremely remote location, in a configuration that presents an exceptionally low risk to a very small number of humans or to the environment. Moreover, the design of the pipeline, corrosion prevention system, and leak detection measures provide additional specific and important protections for humans and the environment.

III. REQUEST FOR FORMAL INTERPRETATION

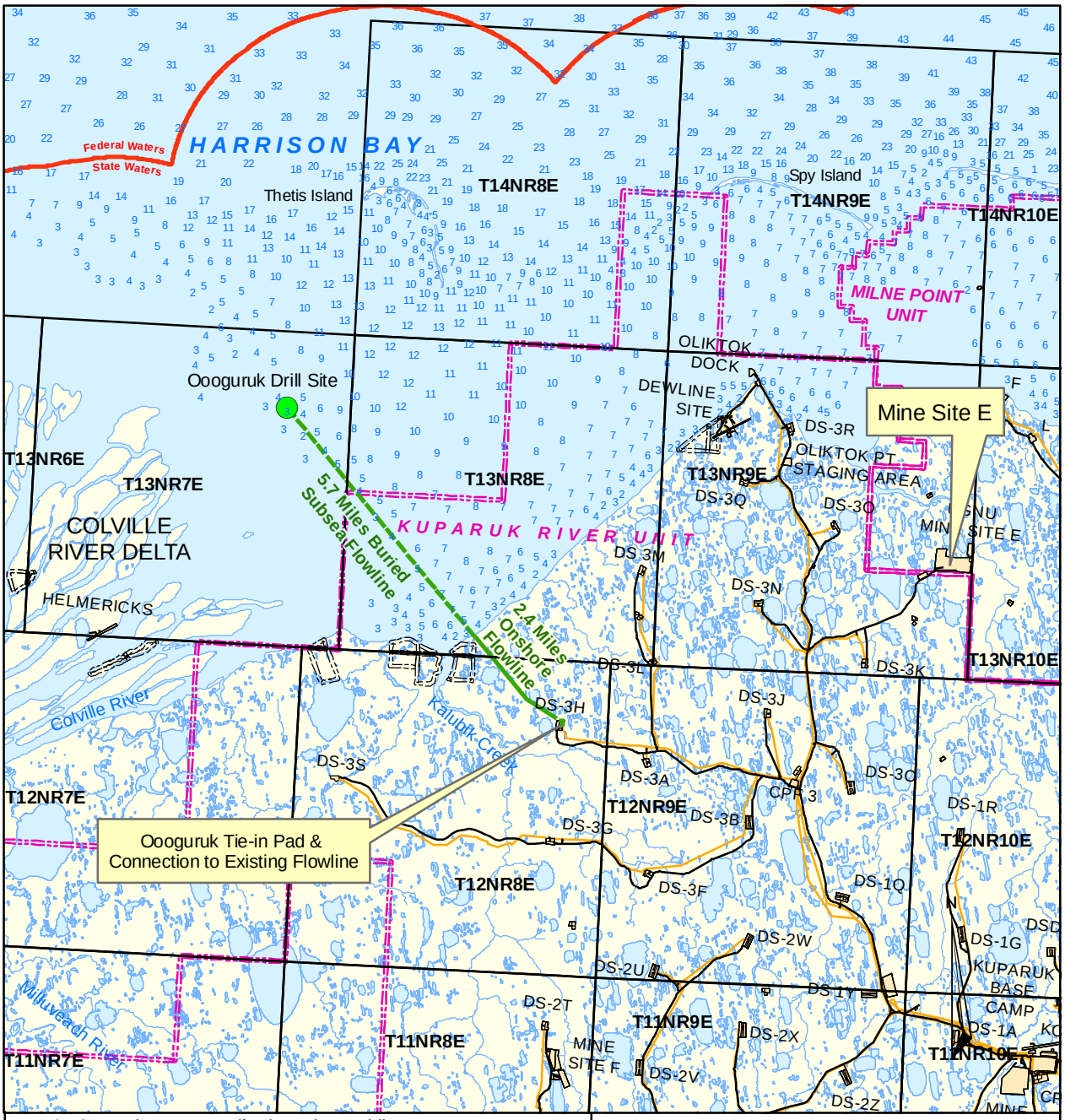
For the reasons stated above, pursuant to 49 C.F.R. § 190.11, Caelus requests a formal written interpretation from PHMSA confirming that, based upon the facts presented above, Caelus' 2-inch diesel line operated in connection with the Oooguruk oil field offshore of the North Slope of

Alaska qualifies for the jurisdictional exemption provided in 49 C.F.R. § 195.1(b)(5). Please contact John Hellén at 907-343-2102 with any questions regarding this request for written interpretation. Your attention to and response regarding this request is appreciated.

Sincerely,

J. Patrick Foley
Senior VP

cc: John Hellén, Caelus
Jeffrey W. Leppo, Stoel Rives



NAD27 State Plane Zone 4 (feet). Umiat Meridian.
Bathymetry in feet, Mean Lower Low Water (MLLW).
Salt and brackish water marshes provided by NOAA.

- Oooguruk Drill Site Location
- Flowline Route - Onshore
- Flowline Route - Buried Subsea
- Kuparuk River and Milne Point Oil & Gas Units
- Federal/State Waters Boundary
- Native Allotment
- Salt & Brackish Water Marshes

CAELUS Energy Alaska

PROJECT LOCATION MAP
Oooguruk Development Project

SCALE: 0 2.5 5 Miles

FIGURE: 1