Effective Tuesday, January 2, 2018, New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) will amend Rule 200101. (“Contract Specifications”) of the Light Sweet Crude Oil Futures contract (the “Contract”) (Rulebook Chapter: 200, Commodity Code: CL) commencing with the January 2019 contract month and beyond.

Specifically, the Exchange is amending the quality specifications of the Contract to include five additional quality test parameters to provide further assurance that the quality and integrity of the domestic sweet crude oil stream is maintained. The five additional quality parameters include tests for distillation, vanadium, nickel, total acid number (“TAN”), and micro carbon residue. The specific test parameters and their corresponding test methodologies are detailed below. In addition, the Exchange is deleting the reference to specific domestic crude oil grades in conformity with standard industry practice, which does not reference specific crude oil grades in the domestic sweet common stream.

Appendix A below provides Rule 200101. in blackline format effective on January 2, 2018. Appendix B further below provides Rule 200101. (deleting references to contract months prior to January 2019) in blackline format effective on November 20, 2018.

Please refer questions on this subject to:

**Energy Research**

Daniel Brusstar  
Daniel.Brusstar@cmegroup.com  
212.299.2604

Russell Karas  
Russell.Karas@cmegroup.com  
212.299.2345
Appendix A
NYMEX Rulebook

(bold/underline indicates addition; strikethrough indicates deletion)

(Effective January 2, 2018)

Chapter 200
Light Sweet Crude Oil Futures

200101. CONTRACT SPECIFICATIONS

(ALL CONTRACT MONTHS PRIOR TO JANUARY 2019)

The contract grade for delivery on futures contracts shall be “crude oil” which shall mean a mixture of hydrocarbons that exists in a liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Crude oil as used herein refers to the direct liquid hydrocarbon production from oil wells, or a blend of such, in its natural form, not having been enhanced or altered in any manner or by any process that would result in misrepresentation of its true value for adaptability to refining as whole crude petroleum. For the purpose of this contract, condensates are excluded from the definition of crude petroleum.

Light sweet crude oil meeting all of the following specifications and designations shall be deliverable in satisfaction of futures contract delivery obligations under this rule:

200101.A. Domestic Crudes (Deliverable at Par)
1. Deliverable Crude Streams
   West Texas Intermediate
   Low Sweet Mix (Scurry Snyder)
   New Mexican Sweet
   North Texas Sweet
   Oklahoma Sweet
   South Texas Sweet

   Blends of these crude streams are only deliverable if such blends constitute a pipeline's designated “common stream” shipment which meets the grade and quality specifications for domestic crude. Enterprise Products Company’s Enterprise Products Partners L.P.; (including any successor in such capacity, “Enterprise”) and Enbridge Pipeline (Ozark) LLC's (including any successor in such capacity, “Enbridge”) Common Domestic Sweet Streams that meet quality specifications in Sections 101.A.2.-7. of this rule are deliverable as Domestic Crude.

2. Sulfur: 0.42% or less by weight as determined by ASTM Standard D-4294, or its latest revision;

3. Gravity: Not less than 37 degrees American Petroleum Institute (“API”), nor more than 42 degrees API as determined by ASTM Standard D-287, or its latest revision;

4. Viscosity: Maximum 60 Saybolt Universal Seconds at 100 degrees Fahrenheit as measured by ASTM Standard D-445 and as calculated for Saybolt Seconds by ASTM Standard D-2161;

5. Reid vapor pressure: Less than 9.5 pounds per square inch at 100 degrees Fahrenheit, as determined by ASTM Standard D-5191-96, or its latest revision;

6. Basic Sediment, water and other impurities: Less than 1% as determined by ASTM D-96-88 or D-4007, or their latest revisions;

7. Pour Point: Not to exceed 50 degrees Fahrenheit as determined by ASTM Standard D-97.

200101.B. Foreign Crudes
1. Deliverable Crude Streams

U.K.: Brent Blend (for which the seller shall be paid a 30 cent per barrel discount below the last settlement price)

Nigeria: Bonny Light (for which the seller shall be paid a 15 cent per barrel premium above the last settlement price)

Nigeria: Qua Iboe (for which the seller shall be paid a 15 cent per barrel premium above the last settlement price)

Norway: Oseberg Blend (for which the seller shall be paid a 55 cent per barrel discount below the last settlement price)

Colombia: Cusiana (for which the seller shall be paid a 15 cent per barrel premium above the last settlement price)

2. Each foreign crude stream must meet the following requirements for gravity and sulfur, as determined by ASTM Standards referenced in Sections 101.A.2.-3. of this rule:

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3. In the event that a Federal U.S. Superfund tax and/or Oil Spill tax is in effect at the time of delivery for foreign crude oil, the buyer shall reimburse the seller for all such taxes that have been or will be paid by the seller.

No blends of foreign crude oil streams or foreign and domestic crude oil streams shall be Deliverable.

**200101. CONTRACT SPECIFICATIONS**

**(ALL CONTRACT MONTHS COMMENCING WITH JANUARY 2019 AND BEYOND)**

The contract grade for delivery on futures contracts shall be "crude oil" which shall mean a mixture of hydrocarbons that exists in a liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Crude oil as used herein refers to the direct liquid hydrocarbon production from oil wells, or a blend of such, in its natural form, not having been enhanced or altered in any manner or by any process that would result in misrepresentation of its true value for adaptability to refining as whole crude petroleum. For the purpose of this contract, condensates are excluded from the definition of crude petroleum.

Light sweet crude oil meeting all of the following specifications and designations shall be deliverable in satisfaction of futures contract delivery obligations under this rule:

**200101.A. Domestic Crudes (Deliverable at Par)**

1. Deliverable Crude Streams

- West Texas Intermediate
- Low Sweet Mix (Scurry Snyder)
- New Mexican Sweet
- North Texas Sweet
- Oklahoma Sweet
- South Texas Sweet
Blends of these West Texas Intermediate ("WTI") type light sweet crude streams are only deliverable if such blends constitute a pipeline’s designated “common stream” shipment which meets the grade and quality specifications for domestic crude. Enterprise Products Company’s Enterprise Products Partners L.P. (including any successor in such capacity, “Enterprise”) and Enbridge Pipeline (Ozark) LLC’s (including any successor in such capacity, “Enbridge”) Common Domestic Sweet ("DSW") Streams that meet quality specifications in Sections 101.A.2.-12.7 of this rule are deliverable as Domestic Crude.

2. Sulfur: 0.42% or less by weight as determined by ASTM Standard D-4294, or its latest revision;

3. Gravity: Not less than 37 degrees American Petroleum Institute ("API"), nor more than 42 degrees API as determined by ASTM Standard D-287, or its latest revision;

4. Viscosity: Maximum 60 Saybolt Universal Seconds at 100 degrees Fahrenheit as measured by ASTM Standard D-445 and as calculated for Saybolt Seconds by ASTM Standard D-2161;

5. Reid vapor pressure: Less than 9.5 pounds per square inch at 100 degrees Fahrenheit, as determined by ASTM Standard D-5191-96, or its latest revision;

6. Basic Sediment, water and other impurities: Less than 1% as determined by ASTM D-96-88 or D-4007, or their latest revisions;

7. Pour Point: Not to exceed 50 degrees Fahrenheit as determined by ASTM Standard D-97;

8. Micro Method Carbon Residue: 2.40% or less by mass; as determined by ASTM Standard D4530-15, or its latest revision;

9. Total Acid Number (TAN): 0.28 mg KOH/g or less as determined by the first inflection point; using ASTM Standard D664-11a (2017), or its latest revision;

10. Nickel: 8 parts per million (ppm) or less by mass; as determined by ASTM Standard D5708-15, Test Method B, or its latest revision;

11. Vanadium: 15 ppm or less by mass; as determined by ASTM Standard D5708-15, Test Method B, or its latest revision;

12. High-Temperature Simulated Distillation (HTSD) as determined by ASTM Standard D7169-16, or its latest revision, as follows:
   (a) Light Ends <220°F by HTSD: Not more than 19% by mass;
   (b) 50% Point by HTSD: 470°F - 570°F;
   (c) Vacuum Residuum >1020°F by HTSD: Not more than 16% by mass.

200101.B. Foreign Crudes

1. Deliverable Crude Streams

   U.K.: Brent Blend (for which the seller shall be paid a 30 cent per barrel discount below the last settlement price)

   Nigeria: Bonny Light (for which the seller shall be paid a 15 cent per barrel premium above the last settlement price)

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   Norway: Oseberg Blend (for which the seller shall be paid a 55 cent per barrel discount below the last settlement price)

   Colombia: Cusiana (for which the seller shall be paid a 15 cent per barrel premium above the last settlement price)
2. Each foreign crude stream must meet the following requirements for gravity and sulfur, as determined by ASTM Standards referenced in Sections 101.A.2.-3. of this rule:

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3. In the event that a Federal U.S. Superfund tax and/or Oil Spill tax is in effect at the time of delivery for foreign crude oil, the buyer shall reimburse the seller for all such taxes that have been or will be paid by the seller.

No blends of foreign crude oil streams or foreign and domestic crude oil streams shall be Deliverable.

Appendix B
NYMEX Rulebook

(strikethrough indicates deletion)

(Effective November 20, 2018)

Chapter 200
Light Sweet Crude Oil Futures

200101. CONTRACT SPECIFICATIONS

(ALL CONTRACT MONTHS PRIOR TO JANUARY 2019)

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2. Sulfur: 0.42% or less by weight as determined by ASTM Standard D-4294, or its latest revision;

3. Gravity: Not less than 37 degrees American Petroleum Institute (“API”), nor more than 42 degrees API as determined by ASTM Standard D-287, or its latest revision;

4. Viscosity: Maximum 60 Saybolt Universal Seconds at 100 degrees Fahrenheit as measured by ASTM Standard D-445 and as calculated for Saybolt Seconds by ASTM Standard D-2161;

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