

**SUBMISSION COVER SHEET**

**IMPORTANT:** Check box if Confidential Treatment is requested

**Registered Entity Identifier Code (optional):** 15-076 (1 of 2)

**Organization:** New York Mercantile Exchange, Inc. ("NYMEX")

**Filing as a:** DCM SEF DCO SDR

**Please note - only ONE choice allowed.**

**Filing Date (mm/dd/yy):** March 27, 2015 **Filing Description:** Notification Regarding the Initial Listing of Two (2) Petroleum Futures Contracts

**SPECIFY FILING TYPE**

**Please note only ONE choice allowed per Submission.**

**Organization Rules and Rule Amendments**

- Certification § 40.6(a)
- Approval § 40.5(a)
- Notification § 40.6(d)
- Advance Notice of SIDCO Rule Change § 40.10(a)
- SIDCO Emergency Rule Change § 40.10(h)

**Rule Numbers:**

**New Product**

**Please note only ONE product per Submission.**

- Certification § 40.2(a)
- Certification Security Futures § 41.23(a)
- Certification Swap Class § 40.2(d)
- Approval § 40.3(a)
- Approval Security Futures § 41.23(b)
- Novel Derivative Product Notification § 40.12(a)
- Swap Submission § 39.5

**Official Product Name:** Singapore Fuel Oil 180cst (Platts) Brent Crack Spread (1000mt) Futures; Singapore Fuel Oil 380cst (Platts) Brent Crack Spread (1000mt) Futures

**Product Terms and Conditions (product related Rules and Rule Amendments)**

- Certification § 40.6(a)
- Certification Made Available to Trade Determination § 40.6(a)
- Certification Security Futures § 41.24(a)
- Delisting (No Open Interest) § 40.6(a)
- Approval § 40.5(a)
- Approval Made Available to Trade Determination § 40.5(a)
- Approval Security Futures § 41.24(c)
- Approval Amendments to enumerated agricultural products § 40.4(a), § 40.5(a)
- "Non-Material Agricultural Rule Change" § 40.4(b)(5)
- Notification § 40.6(d)

**Official Name(s) of Product(s) Affected:**

**Rule Numbers:**

March 27, 2015

**VIA ELECTRONIC PORTAL**

Mr. Christopher J. Kirkpatrick  
Office of the Secretariat  
Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21st Street, N.W.  
Washington, D.C. 20581

**Re: CFTC Regulation 40.2(a) Certification. Notification Regarding the Initial Listing of Two (2) Petroleum Futures Contracts. NYMEX Submission No. 15-076 (1 of 2)**

Dear Mr. Kirkpatrick:

New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) is notifying the Commodity Futures Trading Commission (“CFTC” or “Commission”) that it is self-certifying the initial listing of two (2) Petroleum Futures contracts (collectively, “the Contracts”) for trading on CME Globex, the NYMEX trading floor, and for submission for clearing through CME ClearPort, effective on Sunday, April 12, 2015 for trade date Monday, April 13, 2015.

<b>Product Name</b>	<b>Commodity Code</b>	<b>NYMEX Rule Chapter</b>
Singapore Fuel Oil 180cst (Platts) Brent Crack Spread (1000mt) Futures	SF1	749
Singapore Fuel Oil 380cst (Platts) Brent Crack Spread (1000mt) Futures	SF3	1110

The contract specifications are as follows:

<b>Contract Name</b>	Singapore Fuel Oil 180cst (Platts) Brent Crack Spread (1000mt) Futures
<b>Commodity Code</b>	SF1
<b>Chapter</b>	749
<b>Settlement Type</b>	Financial
<b>Contract Size</b>	The contract quantity shall be 6,350 U.S barrels (1,000 metric tons). Each contract shall be valued as the contract quantity (6,350) multiplied by the settlement price.
<b>Termination of Trading</b>	Trading shall cease on the last business day of the contract month.
<b>Minimum Price Fluctuation</b>	\$0.001 per barrel
<b>Final Settlement Price Tick</b>	\$0.001 per barrel
<b>First Listed Month</b>	May 2015
<b>Minimum Block level</b>	5 contracts

<b>CME Globex Match Algorithm</b>	First in First Out
<b>Listing Convention</b>	CME Globex, CME ClearPort and NYMEX Trading Floor: forty eight consecutive months
<b>Trading Hours CME Globex and CME ClearPort</b>	Sunday – Friday 6:00 p.m. – 5:15 p.m. (5:00 p.m. – 4:15 p.m. CT) with a 45-minute break each day beginning at 5:15 p.m. (4:15 p.m. CT)
<b>Trading Hours NYMEX Trading Floor</b>	Open Outcry: Monday – Friday 9:00 a.m. – 2:30 p.m. (8:00 a.m. – 1:30 p.m. Chicago Time/CT)

<b>Contract Name</b>	Singapore Fuel Oil 380cst (Platts) Brent Crack Spread (1000mt) Futures
<b>Commodity Code</b>	SF3
<b>Chapter</b>	1110
<b>Settlement Type</b>	Financial
<b>Contract Size</b>	The contract quantity shall be 6,350 U.S barrels (1,000 metric tons). Each contract shall be valued as the contract quantity (6,350) multiplied by the settlement price.
<b>Termination of Trading</b>	Trading shall cease on the last business day of the contract month.
<b>Minimum Price Fluctuation</b>	\$0.001 per barrel
<b>Final Settlement Price Tick</b>	\$0.001 per barrel
<b>First Listed Month</b>	May 2015
<b>Minimum Block level</b>	5 contracts
<b>CME Globex Match Algorithm</b>	First in First Out
<b>Listing Convention</b>	CME Globex, CME ClearPort and NYMEX Trading Floor: forty eight consecutive months
<b>Trading Hours CME Globex and CME ClearPort</b>	Sunday – Friday 6:00 p.m. – 5:15 p.m. (5:00 p.m. – 4:15 p.m. CT) with a 45-minute break each day beginning at 5:15 p.m. (4:15 p.m. CT)
<b>Trading Hours NYMEX Trading Floor</b>	Open Outcry: Monday – Friday 9:00 a.m. – 2:30 p.m. (8:00 a.m. – 1:30 p.m. Chicago Time/CT)

#### Trading and Clearing Fees:

Exchange Fees					
	Member (Day Rates)	Member	Cross Division	Non-Member	IIP
<b>NYMEX Pit</b>	\$7.00	\$7.00	\$8.00	\$9.00	
<b>CME Globex</b>	\$7.00	\$7.00	\$8.00	\$9.00	\$8.00
<b>CME ClearPort</b>		\$7.00		\$9.00	

Other Processing Fees		
	Member	Non-Member
Cash Settlement	\$7.00	\$9.00

Additional Fees and Surcharges	
Facilitation Desk Fee	\$0.30

The Exchange is also notifying the CFTC that it is self-certifying the insertion of the terms and conditions for the Contracts into the Position Limit, Position Accountability and Reportable Level Table and Header Notes located in the Interpretations and Special Notices Section of Chapter 5 of the NYMEX Rulebook in relation to the listing of the new contract. These terms and conditions establish the all month/any one month accountability levels, expiration month position limit, reportable level, diminishing balance and aggregation allocation for the contract.

The Exchange reviewed the designated contract market core principles (“Core Principles”) as set forth in the Commodity Exchange Act (“CEA” or “Act”) and identified that the amendments may have some bearing on the following Core Principles:

- **Compliance with Rules:** Trading in the Contracts will be subject to the rules in Rulebook Chapter 4 which include prohibitions against fraudulent, noncompetitive, unfair and abusive practices. Additionally, trading in this futures contract will also be subject to the full panoply of trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the Rulebook. As with all products listed for trading on one of CME Group’s designated contract markets, activity in the new product will be subject to extensive monitoring and surveillance by CME Group’s Market Regulation Department. The Market Regulation Department has the authority to exercise its investigatory and enforcement power where potential rule violations are identified.
- **Contracts Not Readily Susceptible to Manipulation:** The Contracts are not readily susceptible to manipulation due to the structure of the underlying price assessment methodology administered by the Baltic Exchange, which incorporates data from a diverse number of market sources.
- **Prevention of Market Disruption:** Trading in the Contracts will be subject to the Rules of NYMEX which include prohibitions on manipulation, price distortion and disruptions of the delivery or cash-settlement process. As with all products listed for trading on one of CME Group’s designated contract markets, activity in the new product will be subject to extensive monitoring and surveillance by CME Group’s Market Regulation Department.
- **Position Limitations or Accountability:** The spot month position limits for the contract is set at less than the threshold of 25% of the deliverable supply in the underlying market in accordance with the Commission guidance.
- **Availability of General Information:** The Exchange will publish information on the Contracts’ specifications on its website, together with daily trading volume, open interest, and price information.
- **Daily Publication of Trading Information:** Price Assessment information will be published daily on the Exchange’s website and via quote vendors.
- **Financial Integrity of Contracts:** The Contracts will be cleared by the CME Clearing House which is a registered derivatives clearing organization with the Commission and is subject to all Commission regulations related thereto.

- **Execution of Transactions:** The Contracts will be listed for trading on CME Globex and for clearing through the CME ClearPort platform. The CME ClearPort platform provides a competitive, open and efficient mechanism for novating transactions that are competitively executed by brokers. The CME Globex electronic trading platform provides for a competitive and open execution of transactions due to its advanced functionality, high reliability and global connectivity. Establishing non-reviewable trading ranges for Globex trades in the products facilitate price discovery in the products by encouraging narrow bid/ask spreads.
- **Trade Information:** All required trade information is included in the audit trail and is sufficient for the Market Regulation Department to monitor for market abuse.
- **Protection of Market Participants:** Rulebook Chapters 4 and 5 contain multiple prohibitions precluding intermediaries from disadvantaging their customers. These rules apply to trading on all of the Exchange's competitive trading venues and will be applicable to transactions in the subject contracts.
- **Disciplinary Procedures:** Chapter 4 of the Rulebook contains provisions that allow the Exchange to discipline, suspend or expel members or market participants that violate the Rulebook. Trading in the subject contracts will be subject to Chapter 4, and the Market Regulation Department has the authority to exercise its enforcement power in the event rule violations in this contract are identified.

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.2(a), the Exchange hereby certifies that the Contracts comply with the Act, including regulations under the Act. A description of the cash market for these new products is enclosed in Appendix C.

The Exchange certifies that this submission has been concurrently posted on the Exchange's website at <http://www.cmegroup.com/market-regulation/rule-filings.html>.

Should you have any questions concerning the above, please contact the undersigned at (212) 299-2200 or via e-mail at [CMEGSubmissionInquiry@cmegroup.com](mailto:CMEGSubmissionInquiry@cmegroup.com).

Sincerely,

/s/ Christopher Bowen  
 Managing Director and Chief Regulatory Counsel

Attachments: Appendix A: NYMEX Rulebook Chapters  
 Appendix B: Position Limit, Position Accountability and Reportable Level Table located in Chapter 5 of the NYMEX Rulebook (attached under separate cover)  
 Appendix C: Cash Market Overview and Analysis of the Deliverable Supply  
 Appendix D: NYMEX Rule 588.H – Globex Non-Reviewable Trading Ranges

## **APPENDIX A**

### **NYMEX RULEBOOK**

#### **Chapter 749**

#### **Singapore Fuel Oil 180cst (Platts) Brent Crack Spread (1000mt) Futures**

##### **749100. SCOPE OF CHAPTER**

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

##### **749101. CONTRACT SPECIFICATIONS**

The Floating Price for each contract month is equal to the arithmetic average of the mid-point of the high and low quotations from the Platts Asia-Pacific Marketscan for HSFO 180cst (High-Sulfur Fuel Oil) under the heading "Singapore Physical Cargoes" minus the Brent Crude Oil (ICE) Futures first nearby contract settlement price for each business day during the contract month, except as set forth below.

The settlement price of the first nearby Brent Crude Oil (ICE) Futures contract month will be used except on the last day of trading for the expiring Brent Crude Oil (ICE) Futures contract when the settlement price of the second nearby contract month will be used.

For purposes of determining the Floating Price, the Platts Fuel Oil assessment price will be converted each day to U.S. dollars and cents per barrel, rounded to the nearest cent. The conversion factor will be 6.35 barrels per metric ton. The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

##### **749102. TRADING SPECIFICATIONS**

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

###### **749102.A. Trading Schedule**

The hours of trading for this contract shall be determined by the Exchange.

###### **749102.B. Trading Unit**

The contract quantity shall be 6,350 U.S. barrels (1,000 metric tons). Each contract shall be valued as the contract quantity (6,350) multiplied by the settlement price.

###### **749102.C. Price Increments**

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.001 per barrel.

###### **749102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels**

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

###### **749102.E. Termination of Trading**

The contract shall terminate at the close of trading on the last business day of the contract month.

##### **749103. FINAL SETTLEMENT**

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

**749104. DISCLAIMER**

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**Chapter 1110**  
**Singapore Fuel Oil 380cst (Platts) Brent Crack Spread (1000mt) Futures**

**1110100. SCOPE OF CHAPTER**

The provisions of these rules shall apply to all futures contracts bought or sold on the Exchange for cash settlement based on the Floating Price. The procedures for trading, clearing and cash settlement of this contract, and any other matters not specifically covered herein shall be governed by the general rules of the Exchange.

**1110101. CONTRACT SPECIFICATIONS**

The Floating Price for each contract month is equal to the arithmetic average of the mid-point of the high and low quotations from the Platts Asia-Pacific Marketscan for HSFO 380cst (High-Sulfur Fuel Oil) under the heading "Singapore Physical Cargoes" minus the Brent Crude Oil (ICE) Futures first nearby contract settlement price for each business day during the contract month, except as set forth below.

The settlement price of the first nearby Brent Crude Oil (ICE) Futures contract month will be used except on the last day of trading for the expiring Brent Crude Oil (ICE) Futures contract when the settlement price of the second nearby contract month will be used.

For purposes of determining the Floating Price, the Platts Fuel Oil assessment price will be converted each day to U.S. dollars and cents per barrel, rounded to the nearest cent. The conversion factor will be 6.35 barrels per metric ton. The Floating Price is calculated using the non-common pricing convention. In calculating the spread differential, the monthly average for each component leg of the spread shall be calculated by using all trading days in the month for each component leg of the spread, followed by the calculation of the spread differential between the two averages.

**1110102. TRADING SPECIFICATIONS**

Contracts shall be listed for a range of calendar months. The number of months open for trading at a given time shall be determined by the Exchange.

**1110102.A. Trading Schedule**

The hours of trading for this contract shall be determined by the Exchange.

**1110102.B. Trading Unit**

The contract quantity shall be 6,350 U.S barrels (1,000 metric tons). Each contract shall be valued as the contract quantity (6,350) multiplied by the settlement price.

**1110102.C. Price Increments**

Prices shall be quoted in U.S. dollars and cents per barrel. The minimum price fluctuation shall be \$0.001 per barrel.

**1110102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels**

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

**1110102.E. Termination of Trading**

The contract shall terminate at the close of trading on the last business day of the contract month.

**1110103. FINAL SETTLEMENT**

Final settlement under the contract shall be by cash settlement. Final settlement, following termination of trading for a contract month, will be based on the Floating Price. The final settlement price will be the Floating Price calculated for each contract month.

**1110104. DISCLAIMER**

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**APPENDIX B**

**NYMEX Rulebook Chapter 5 Position Limit Table**

(Attached Under Separate Cover)

## APPENDIX C

### Cash Market Overview

The New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) is self-certifying the listing of two Singapore Fuel Oil (Platts) Brent crack spread futures contracts for trading on the NYMEX trading floor, the CME Globex electronic trading platform, and for submission for clearing through CME ClearPort.

The proposed new products are related to the Singapore fuel oil market and the Brent crude oil market. Fuel oil is generally used in the production of electric power, space heating, vessel bunkering, and various industrial purposes. The Brent market is comprised of four North Sea crude oil grades: Brent, Forties, Oseberg, and Ekofisk (“BFOE” or “Brent”). These four North Sea grades are segregated blends delivered at different locations in the North Sea.

#### a) Singapore Fuel Oil Market

Singapore 180cst and 380cst Fuel Oil are part of the “residual” fuel oil segment, which is used by utilities and the shipping industry. Residual Fuel Oil is also used as a refinery input to produce additional petroleum products via a deeper conversion process at the refinery which breaks down the high sulphur molecules into lower sulphur. The main trading hub for the Asian fuel oil market is Singapore, where extensive storage capacity and refining infrastructure exists. Singapore is a vibrant import/export center for petroleum products, and is also the primary location for energy trading firms. The Singapore petroleum markets are highly diverse and actively traded by refiners, traders, importers, and smaller distributors. Singapore is a major trading hub for Fuel oil in Asia-Pacific with its two benchmark products used to price imports into China and beyond.

Production data for Singapore is relatively limited and most of the data sources are outdated. The US Energy Information Administration (EIA) provides data for fuel oil imports, exports, consumption and production data in Singapore through to calendar year 2010 only. According to the US EIA production of Singapore Fuel oil was 149,000 b/d.

The Singapore Energy Markets Authority (EMA) publishes production data for Heavy distillates and Residuum up to 2012. Fuel oil production was around 265,000 b/d which is the equivalent of 1.25 million metric tons per month (based on a conversion factor of 6.35 barrels per metric ton). Heavy Distillates and Residuum includes other products such as Vacuum Gasoil (VGO). Based on market sources the most conservative estimate suggests that this figure should be reduced by 25% meaning that Fuel oil only represents around 75% or 199,000 barrels per day (940,000 metric tons per month).

**Table 1: Singapore Heavy Distillates and Residuum Production**

Source: EMA

Units: Barrels per day	2010	2011	2012	2010-2012 average
<b>Refinery Output</b>	1,038,982.05	1,102,221.48	1,123,624.66	1,088,276.07
<b>Light Distillates</b>	292,013.80	294,583.26	318,950.95	301,849.34
<b>Middle Distillates</b>	467,589.98	507,770.93	527,847.26	501,069.39
<b>Heavy Distillates &amp; Residuum</b>	259,692.54	277,099.81	259,557.73	265,450.03

\* The conversion factors used are Light Distillates 8.33 barrels TOE, Middle distillates 7.45 barrels TOE and Heavy Distillates 6.35 barrels TOE

Singapore is a heavily import dependent market as it is a supply centre for much of Asia including China where cargoes will often be blended and shipped outside of Singapore. According to EMA Singapore imports of Fuel oil were estimated to be around 1.07-million barrels per day which equates to 5.05 million metric tons per month.

**Table 2: Singapore Fuel Oil Imports**

Source: EMA<sup>1</sup>

Unit: Barrels per day	2011	2012	2013	3 year average
<b>Fuel Oil</b>	<b>1,089,762.64</b>	<b>1,034,169.70</b>	<b>1,108,064.56</b>	<b>1,077,332.30</b>
Gas/ Diesel Oil	358,789.96	297,681.59	263,919.82	306,797.12
Gasoline	337,444.88	319,068.67	317,121.96	324,545.17
Jet Fuel Kerosene	45,483.78	32,388.11	34,147.53	37,339.81
Naphtha	149,278.60	155,320.85	187,592.49	164,063.98

\* The conversion factors used are Light Distillates 8.33 barrels TOE, Middle distillates 7.45 barrels TOE and Heavy Distillates 6.35 barrels TOE

According to JODI imports of residual fuel was around 1.2 million barrels per day which equates to 5.6 million metric tons per month. This figure is consistent with the EMA Import data. It should be noted that JODI doesn't publish production volume statistics.

**Table 3: Selected Statistics for Fuel Oil: Singapore**

Source: JODI<sup>2</sup> (Thousand Barrels per day)

Item and Region	12 months to Aug 2012	12 months to Aug 2013	12 months to Aug 2014	3 year average period
Imports Residual Fuel Oil				
Singapore	1,164	1,195	1,247	1,202
Exports Residual Fuel Oil	441	463	542	482
Singapore				

<sup>1</sup> Singapore Energy Market Authority 2013– Table 1.1 Imports of Energy Products 2005 to 2013 (page 10)  
[http://www.ema.gov.sg/cmsmedia/Publications\\_and\\_Statistics/Statistics/271014OTS1.pdf](http://www.ema.gov.sg/cmsmedia/Publications_and_Statistics/Statistics/271014OTS1.pdf)

<sup>2</sup> Joint Organisations Data Initiative  
[http://www.jodidb.org/ReportFolders/reportFolders.aspx?sCS\\_referer=&sCS\\_ChosenLang=en](http://www.jodidb.org/ReportFolders/reportFolders.aspx?sCS_referer=&sCS_ChosenLang=en)

## **b) Brent Crude Oil Market**

The North Sea market is comprised of the oil fields in the UK and Norwegian North oil sectors. There is a series of smaller oil fields which connect into larger streams. The most important streams in the North Sea comprise of Brent, Forties, Oseberg and Ekofisk and each stream has a principle operator that is responsible for the day to the day control of the operations including the scheduling of the cargoes based on the production from each of the smaller producing fields. The Brent, Forties, Oseberg and Ekofisk fields are known as BFOE and they underpin the Brent complex and are the key grades of oil that make up the trading of Dated Brent – the international crude oil physical benchmark price.

The core of the Brent market is the cash market. The Brent forward market consists of the trading of cargoes of any of the Brent, Forties, Oseberg and Ekofisk streams for delivery beyond the 25 days, with no specific dates assigned for loading. The cargoes are 600,000 barrels and, in the forward market, the precise loading dates are not provided, only the delivery month i.e. December BFOE Cargo. However the commercial contracts, which are standardized, underlying the forward market to specify the minimum timing the seller must provide the buyer to notify them as to the specific cargo loading date – currently 25 days in advance. After the seller of a BFOE forward cargo notifies the buyer as to the loading date and which stream is being loaded, the contract is now considered to have moved from the forward market to the Dated Brent market, historically this moment is referred to as the cargo going “wet” i.e. it has loading dates attached to it and can therefore be sold as a Dated Brent cargo.

The Brent cash market is essentially a reseller market where buyers either: resell the oil to someone else; transport the cargo and resell it later; or transport the cargo to consume it. Most of the sales in the Brent market are conducted as spot-market transactions; in fact, Brent cargoes in the physical market are estimated to trade 10 or more times. Typically, there is a chronology of sales and purchases of crude oil in the Brent cash market that starts with a sale from the equity producer in a spot market transaction, and finishes with a purchase by an end-user to consume the crude oil. Equity producers typically utilize the robust spot market to sell their BFOE production at the cargo loading terminal, as a “Free on Board” (FOB) delivery. Traders play an active role in the Brent market as middlemen with the expressed responsibility of reselling the oil. Further, the refiners typically rely on the spot market to purchase Brent crude oil, because there is vibrant liquidity in the spot market, and hence, the refiners have developed a preference for short-term spot market purchases, rather than long-term contracts. This applies to refiners affiliated with equity producers as well as those not affiliated; this is the standard practice, established and institutionalized over the past 34 years.

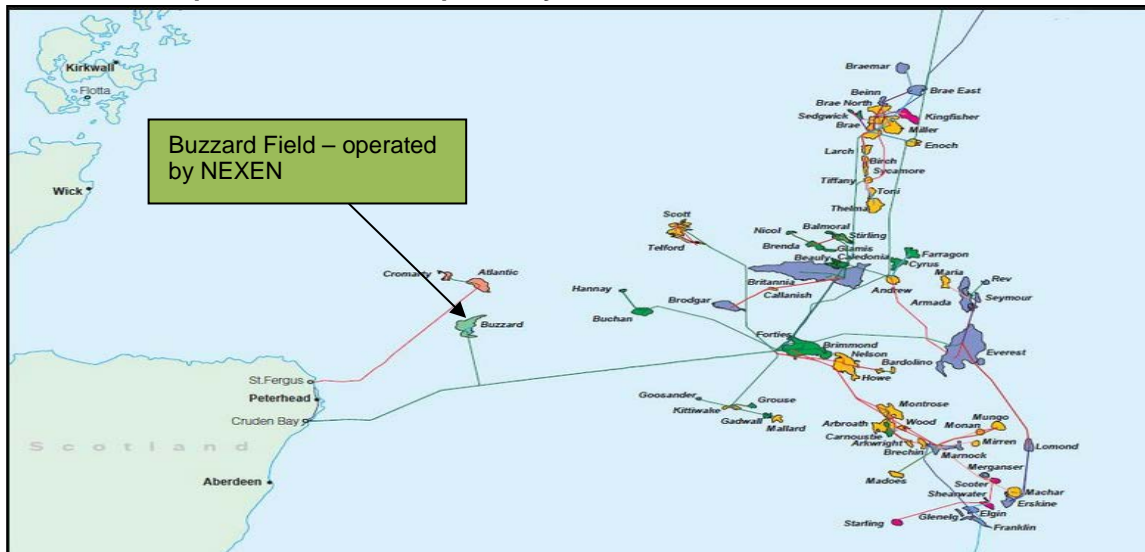
Production of BFOE has been declining over the past few years due to the cost of drilling and the returns on investment compared to other regions in the world. These four North Sea grades are segregated blends delivered at different locations in the North Sea, and each can be substituted by the seller in the 25-Day BFOE cash market (“the forward market”). Quality adjustments ensure that all four grades can be delivered to a buyer under the standardized forward contract. Platts made an adjustment to the forward market mechanism with effect from March 2015 with the nomination period being extended from 25-days to month ahead. Both ICE and NYMEX have adjusted the expiry calendar of the Futures to align more closely with the forward market with effect from the March 2016 contract month (as an earlier transition would have had a significant impact on the open interest holders).

The process of moving from a forward to the physical market where a forward Brent cargo becomes a physical North Sea Dated Brent cargo happens as follows:

1. Refiners, producers and traders enter into a forward agreement for a particular month.
2. The Operator of each field being Shell for Brent; BP for Forties; ConocoPhillips for Oseberg and Statoil for Ekofisk will announce the loading programs at least 25 days prior before the month starts to be wet (i.e. cargoes in the delivery month start to load). This nomination process is being extended to month ahead from March 2015 i.e. the March cash cargo will expire on the 31st of January 2015.
3. The equity producers will begin the chain of nominating cargoes to buyers (or they can decide to keep the cargo). A buyer benefiting from a nomination can keep the cargo or pass it to another player with whom it has another forward contract. Buyers trade the cash BFOE on the basis that they will accept any cargo as nominated provided that it is done so within the agreed notice period (currently 25 days) by 4pm London time. Any cargo not nominated by this time will remain with the participant last notified. After 4pm London time, the cargo becomes wet physical with precise loading dates attached.
4. Cargoes that are wet physical will be sold as a Dated Brent cargo with cargo loading dates between 10 and 25 days forward.

Chart 1 shows the makeup of the fields in the Forties pipeline system (FPS) which is operated by BP. There are over 50 offshore fields that flow through within the FPS. The delivery point for Forties crude oil is Hound Point, which is on the East coast of Scotland a short distance from the UK oil capital Aberdeen. Forties is a blended crude oil from all of the fields that feed into it.

**Chart 1: Example of the Forties Pipeline System**



The blend changed at the beginning of 2007 when crude oil from the Buzzard field began to flow into it. Crucially Buzzard is now the largest field within the FPS. Buzzard crude oil is a medium gravity, sour crude oil with an API of 32.6 and a sulphur content of 1.44% therefore the yield is very similar to that of Urals crude oil (from Russia). The FPS produces a forward forecast of the anticipated percentage of Buzzard crude in Forties Blend<sup>3</sup>. The overall quality of Forties crude oil varies depending on the percentage of Buzzard as a proportion of the overall blend.

<sup>3</sup> FPS – Forties Crude Oil (BP) [http://www.bp.com/en/global/forties-pipeline/about\\_fps/forties\\_blend\\_quality.html](http://www.bp.com/en/global/forties-pipeline/about_fps/forties_blend_quality.html)

**Table 4: Percentage of crude from Buzzard field within the FPS**

Month	Buzzard % in Forties blend	Forties Blend production (kbd)
December 2014	40.5%	458.5
January 2015	37.8%	479.4
February 2015	36.6%	449
March 2015	34.3%	443.2

The start up of the Buzzard field feeding into the Forties pipeline system (see the map in Chart 1), this has resulted in Forties being almost always the cheapest of the four grades to deliver as a dated Brent cargo due to the higher sulphur content of Buzzard compared to Forties and the fact that Buzzard makes up around 40% of the Forties blend.

The four BFOE fields lie in the North Sea. Brent and Forties are in the UK sector, whilst Ekofisk and Oseberg are in the Norwegian sector. Bloomberg LP (“Bloomberg”) provides details of the BFOE loading programs for the four grades that comprise the Brent market.

According to data published by Bloomberg, daily crude oil production for these four grades has been declining over the past few years, as shown in Table 5. Based on the most recent 3-year average of the Bloomberg data on BFOE loadings (from November 2011 through to October 2014), the total loadings of Brent (BFOE) crude oil was approximately 878,042 barrels per day, which is equivalent to approximately 26.3 million barrels per month. In the latest 12 month period up to October 2014, the average loadings of Brent (BFOE) crude oil have increased marginally to 883,195 barrels per day which is the equivalent to 26.49 million barrels per month.

**Table 5: North Sea Crude oil loadings – Brent, Forties, Oseberg and Ekofisk (BFOE)**

Source: Bloomberg – BFOE Monthly loadings

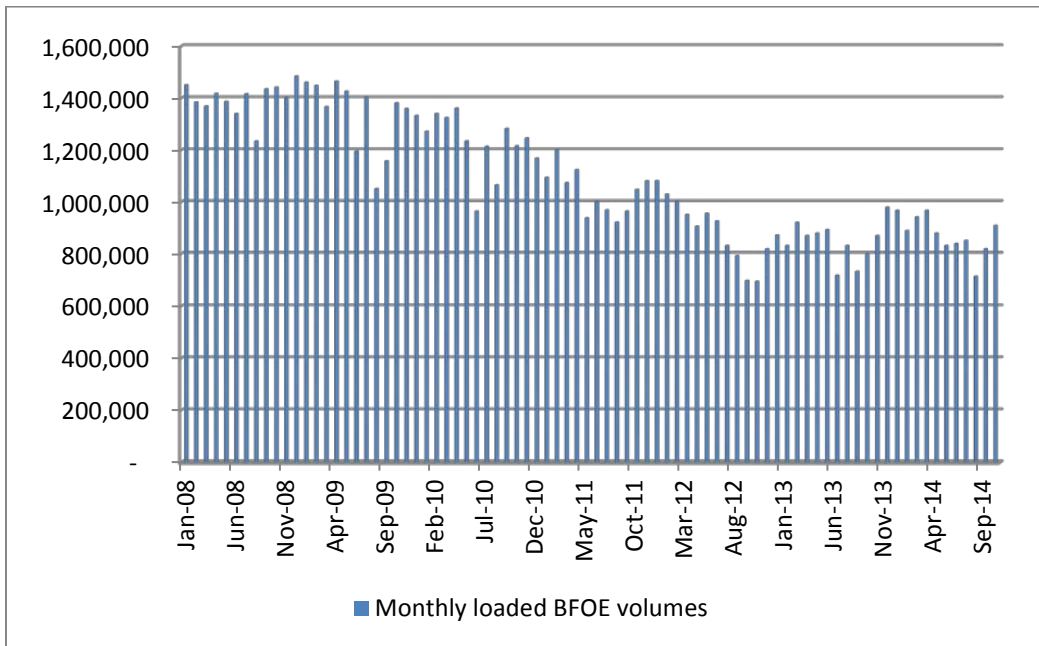
Units: Thousand barrels per day	12 months to October 2014	12 months to October 2013	12 months to October 2012	3 year average
BFOE Loadings	883,195	837,430	913,500	878,042

Chart 2 below shows the production of the four grades that make up the Brent market since January 2008. Production levels have steadily declined, partly due to the lack of investment and partly because typical upstream returns for oil companies have been higher elsewhere so have focused CAPEX spending outside of the North Sea leaving margin fields as the domain of the smaller and more independent producing companies.

**Chart 2: North Sea Crude oil loadings – Brent, Forties, Oseberg and Ekofisk (BFOE)**

Source: Bloomberg

Units: Barrels per day





## Market Activity

The Singapore Fuel oil market is priced in USD and cents per ton. The conversion factor is 6.35 barrels per metric tonne. The estimated trading volume of fuel oil traded in the Singapore cash market is between 125,000 and 150,000 tons per day or 800,000 to 1-million barrels per day. The typical transaction size is between 20,000 and 40,000<sup>4</sup> tons. The volume of spot transactions is typically more than half of all cash transactions. There is active trading in forward cash deals and in the OTC swaps market. Forward cash transactions may be re-traded or the cargoes re-nominated to alternative recipients. The bid/ask spreads are typically 25 to 50 cents per metric tonne which reflects the liquidity in the cash market. Singapore is also a significant refining centre for Asia-Pacific with over 1.3-mil b/d of nameplate capacity. The largest refiner in the region is the 605,000 b/d Jurong Island Refinery operated by Exxon-Mobil. Other refiners include Singapore Refining, also on Jurong Island, and Shell's Pulau Bukom Refinery. Business Monitor International said that Petrochemicals and Refining remain the lifeblood of Singapore and that throughput should continue to rise in line with regional demand. The government will promote long-term growth in refining capacity in order to maintain its position as a leading exporter and regional trading hub. Trading activity in Singapore is focused on fuel oil with differing viscosity specifications: 180 and 380 centistokes. Market feedback indicates that 80% of the traded volume is based on the 180cst viscosity.

The Brent market is priced in USD and cents per barrel. There are two significant Futures contracts based on trading activity in the forward BFOE market. NYMEX and ICE Futures Europe offer trading of Brent Futures on their respective Exchanges. The cash market is traded in partials of 100,000 barrels or larger full size cargo transactions of 600,000 barrels. Physical convergence can occur through the partials market mechanism upon the trading of 6 parcels with the same counterparty in a single delivery month. If physical convergence does not occur then trades are booked out at the prevailing cash value on the last day of trading day of the cash market for the specific delivery month (i.e. this is currently 25 days prior to the 1<sup>st</sup> loading date of the delivery month). Full sized physical cargo BFOE trades will be used by ICE in the establishment of the Brent Index<sup>5</sup> which is the mechanism by which the futures open on expiry are cash settled.

The Dated Brent or Dated BFOE, as it is sometimes referred, reflects the value of the cheapest of Brent, Forties, Oseberg and Ekofisk, of 600,000 barrels, loading in the next 10-25 days and then month ahead from March 2015. Dated Brent is estimated to price around 50% of the global crude oil supply<sup>6</sup>. Within the North Sea and beyond grades are traded as a differential to Dated Brent or as a

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<sup>4</sup> Platts Asia Refined Products methodology guide July 2014

<http://www.platts.com/IM.Platts.Content/MethodologyReferences/MethodologySpecs/Asia-refined-oil-products-methodology.pdf>

<sup>5</sup> The ICE Brent Index November 2014

[https://www.theice.com/publicdocs/futures/ICE\\_Futures\\_Europe\\_Brent\\_Index.pdf](https://www.theice.com/publicdocs/futures/ICE_Futures_Europe_Brent_Index.pdf)

<sup>6</sup> Oxford Institute of Energy Studies – Brent prices: Impact of PRA methodology on price formation (page 4)

<http://www.oxfordenergy.org/wpcms/wp-content/uploads/2012/03/Brent-Prices-Impact-of-PRA-methodology-on-price-formation.pdf>

differential to cash Brent (BFOE). Each of the crude oil grades within BFOE are not the same quality, several adjustments have been made. In 2007 Platts included a sulphur de-escalator for Forties crude oil within its Dated Brent and Brent related instruments. The change was made in response to inclusion of sour crude Buzzard into the Forties pipeline system (see chart 1). The de-escalator of price is applied to deliveries above a minimum sulphur level of 0.6%. Every month, Platts establishes a USD value de-escalator for every 0.1% of sulphur above 0.6%. The value of de-escalator is established by reviewing evidence of significant and sustained changes in the crude market, as affected by refined products (crack spread values of both heavy fuel oils and light ends) and other relevant factors that affect the economics of Forties crude.

#### **Price source: Platts**

Platts is the most relevant Price Reporting Agency (PRA) covering the Fuel Oil and Brent markets although others also provide price indications such as Argus and ICIS. The Platts methodology is well known and understood by the Oil industry and most people believe the mechanism to be robust. The Exchange has a licence agreement with Platts to utilize its pricing data. Platts has a long standing reputation in the industry in publishing price benchmarks that are fair and not manipulated. Their pricing methodology is derived from telephone surveys and electronic data collected from multiple market participants to determine market value<sup>7</sup>.

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<sup>7</sup> Platts Refined Products and Crude Oil methodology homepage can be found here:  
<http://www.platts.com/methodology-specifications/oil>

## **Analysis of Deliverable Supply**

The spot month position limits for the new crack spread contracts will be aggregated with the existing position limits for the underlying counterparts of the contract, which are currently listed on the Exchange. Appropriate conversions will be made where applicable between metric tons and barrels. A conversion factor of 6.35 barrels per 1 metric ton will be applied and reflected in the position limit tables.

The Exchange is not including stocks data in its analysis of deliverable supply. Stocks data tend to vary and, at least upon launch of products, we would rather not condition recommended position limits based on stock data. Further, the Exchange has determined not to adjust the deliverable supply estimate based on the spot availability because spot market liquidity is not restrictive and tends to vary depending on the market fundamentals of demand and supply. The typical term agreement in the cash market allows flexibility for re-trading of the contracted quantity in the spot market, so the term agreements do not restrict the potential deliverable supply. Also, the spot trading is not restricted in that it could increase if the market demand increases. Therefore, we believe that it is not necessary to adjust the deliverable supply estimate on the basis of spot trading activity as it does not restrict the deliverable supply, and spot trading volume can expand to allow for more supply to flow if needed in the spot market.

For the Singapore Fuel oil we have determined deliverable supply as production and imports into the location to give an accurate picture of the amount of product that is available to each market in each location.

Based on the Energy Markets Authority Data for Singapore (EMA), the deliverable supply of fuel oil in Singapore was 1.27 million barrels per day, which comprised of 199,000 b/d of refinery production (representing 75% of the EMA production volumes for Fuel oil) and 1.07 million b/d of imports. This equates to 6 million metric tons per month. Using the figure of 80% as the proportion of the market which is 180cst material this equates to around 4.8 million metric tons per month and 20% of the market is 380cst material therefore 1.2 million metric tons per month. By way of note, the JODI imports data for Singapore fuel oil was 1.2 million barrels per day but this has been excluded from this analysis due to no production data being available.

In its analysis of deliverable supply, the Exchange concentrated on the actual loadings of Brent related (BFOE) crude oil. In addition, the Exchange has reduced the deliverable supply of Forties to account for the crude oil purchases by the Grangemouth refinery. Based on the most recent 3-year average of the Bloomberg data on BFOE loadings (from November 2011 through October 2014), the total loadings of Brent (BFOE) crude oil was approximately 878,042 barrels per day, which is equivalent to approximately 26.34 million barrels per month. In the latest 12 months (from November 2013 to October 2014), the average loadings of Brent (BFOE) crude oil have increased to 883,195 barrels per day, which is equivalent to 26.49 million barrels per month. Further, to account for the crude oil purchases by the Grangemouth refinery, the deliverable supply would be reduced by 3.2 million barrels per month. Therefore, the total deliverable supply of BFOE is approximately 23.29 million barrels per month.

### **Proposed Position Limits**

Positions in the Singapore 380cst Fuel Oil (Platts) Brent Futures will aggregate into the two legs; Singapore Fuel oil 380cst (Platts) Futures (commodity code SE) and the Brent Crude Oil Penultimate Financial Futures contract (commodity code BB).

Positions in the Singapore 180cst Fuel Oil (Platts) Brent Futures will aggregate into the two legs; Singapore Fuel oil 180cst (Platts) Futures (commodity code UA) and the Brent Crude Oil Penultimate Financial Futures contract (commodity code BB).

The deliverable supply of 380cst Fuel oil is 1.2 million metric tons (1,200 contract equivalents based on a contract size of 1,000 metric tons) therefore a spot month limit of 150 contracts equates to 12.5%.

The monthly deliverable supply of 180cst Fuel oil is 4.8 million metric tons (4,800 contract equivalents based on a contract size 1,000 metric tons) therefore a spot month limit of 500 contracts equates to 10.4%.

Positions in the Brent leg of each of the two spread contracts will aggregate into the Brent Crude Oil Penultimate Financial Futures contract (commodity code BB) which has a contract size of 1,000 barrels and for which the spot month position limit is 4,000 lots. The monthly deliverable supply of Brent (BFOE) is 23.29 million barrels (23,290 contract equivalents based on a contract size of 1,000 barrels) therefore a spot month limit of 4,000 lots equates to 17.17% of the deliverable supply. (Note that, for the new crack spread contracts, the contract size is 1,000 metric tons or 6,350 barrels, and a conversion factor of 6.35 barrels per 1 metric ton will be applied where applicable.)

Amendments to the Position Limit, Position Accountability and Reportable Level Table located in the Interpretations and Special Notices section of Chapter 5 of the NYMEX Rulebook in relation to the listing of the contracts will be self-certified under separate cover.

## **APPENDIX D**

### **NYMEX Rule 588.H. Globex Non-Reviewable Trading Ranges**

<b>Instrument</b>	<b>Non-Reviewable Range (NRR) in Globex format</b>	<b>NRR including Unit of Measure</b>	<b>NRR Ticks</b>
Singapore Fuel Oil 180cst (Platts) Brent Crack Spread (1000mt) Futures	1000	\$0.10 per barrel	1000
Singapore Fuel Oil 380cst (Platts) Brent Crack Spread (1000mt) Futures	1000	\$0.10 per barrel	1000