

SUBMISSION COVER SHEET

IMPORTANT: Check box if Confidential Treatment is requested

Registered Entity Identifier Code (optional): 22-139

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): 06/09/22 **Filing Description:** Initial Listing of the Micro NY Harbor Futures Contract

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: See filing.

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:

June 9, 2022

VIA ELECTRONIC PORTAL

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

**Re: CFTC Regulation 40.2(a) Certification. Initial Listing of the Micro NY Harbor ULSD Futures Contract.
NYMEX Submission No. 22-139**

Dear Mr. Kirkpatrick:

New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) is certifying to the Commodity Futures Trading Commission (“CFTC” or “Commission”) the initial listing of Micro NY Harbor ULSD Futures contract (the “Contract”) for trading on the CME Globex electronic trading platform (“CME Globex”) and for submission for clearing via CME ClearPort, effective Sunday, June 26, 2022 for trade date Monday, June 27, 2022, as more specifically described below.

Contract Title	Micro NY Harbor ULSD Futures
Rulebook Chapter	434
Commodity Code	MHO
Listing Schedule	Monthly contracts listed for 12 consecutive months.
First Listed Contract	July 2022
Contract Size	4,200 gallons (one-tenth the size of NY Harbor ULSD Futures (HO))
Settlement Method	Financial
Minimum Price Fluctuation	\$0.0001
Value per Tick	\$0.42
CME Globex Match Algorithm	First-In, First-Out (FIFO)
Block Trade Minimum Threshold	250 contracts – subject to a minimum 15-minute reporting window
Termination of Trading	Trading shall cease one business day prior to the termination date of the NY Harbor ULSD Futures contract for the corresponding contract month.

Trading and Clearing Hours	<p>CME Globex Pre-Open: Sunday 4:00 p.m. - 5:00 p.m. Central Time/CT Monday - Thursday 4:45 p.m. - 5:00 p.m. CT</p> <p>CME Globex: Sunday - Friday 5:00 p.m. CT with a daily maintenance period from 4:00 p.m. - 5:00 p.m. CT</p> <p>CME ClearPort: Sunday - Friday 5:00 p.m. - 4:00 p.m. CT with no reporting Monday - Thursday from 4:00 p.m. - 5:00 p.m. CT</p>
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The new financially-settled Contract is a referenced contract and will be subject to federal position limits during the spot month. The core referenced futures contract is the NY Harbor ULSD Futures contract (Commodity Code: HO; Rulebook Chapter 150).

In addition, the Contract will be eligible for offset with the Exchange's existing NY Harbor ULSD Bullet Futures, E-mini NY Harbor ULSD Futures, RBOB Gasoline Bullet Futures, and E-mini RBOB Gasoline Futures contracts pursuant to NYMEX Rule 855. ("Offsetting Positions") as noted in Exhibit F below.

Exchange reviewed the designated contracts market core principles ("Core Principles") as set forth in the Commodity Exchange Act ("CEA" or "Act") and identified that the Contracts may have some bearing on the following Core Principles:

- **Compliance with Rules:** Trading in the Contract will be subject to the rules in Rulebook Chapter 4 which includes prohibitions against fraudulent, noncompetitive, unfair and abusive practices. Additionally, trading in the 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.
- **Contract Not Readily Subject to Manipulation:** The Contract is not readily susceptible to manipulation and are based on the deep liquidity of the underlying futures contracts.
- **Prevention of Market Disruption:** Trading in the Contract 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 products will be subject to extensive monitoring and surveillance by CME Group's Market Regulation Department.
- **Position Limitations or Accountability:** The speculative position limits for the Contract as demonstrated in this submission are consistent with the Commission's guidance.
- **Availability of General Information:** The Exchange will publish on its website information regarding contract specifications, terms and conditions, as well as daily trading volume, open interest and price information for the Contracts.
- **Daily Publication of Trading Information:** The Exchange will publish information contract trading volumes, open interest levels, and price information daily on its website and through quote vendors for the Contract.
- **Execution of Transactions:** The Contract will be listed for trading on the CME Globex electronic trading and for clearing through CME ClearPort. The CME Globex trading venue provides for competitive and open execution of transactions. CME Globex affords the benefits of reliability and global connectivity.

- **Trade Information:** All required trade information for the Contract will be included in the audit trail and is sufficient for the Market Regulation Department to monitor for market abuse.
- **Financial Integrity of Contract:** The Contract 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.
- **Protection of Market Participants:** NYMEX 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 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 Contract 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 these products are identified.
- **Dispute Resolution:** Disputes with respect to trading in the Contract will be subject to the arbitration provisions set forth in Chapter 6 of the Rulebook. The rules in Chapter 6 allow all nonmembers to submit a claim for financial losses resulting from transactions on the Exchange to arbitration. A member named as a respondent in a claim submitted by a nonmember is required to participate in the arbitration pursuant to the rules in Chapter 6. Additionally, the Exchange requires that members resolve all disputes concerning transactions on the Exchange via arbitration.

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.2(a), the Exchange hereby certifies that listing the Contract complies with the Act, including regulations under the Act. There were no substantive opposing views to the proposal.

The Exchange certifies that this submission has been concurrently posted on the CME Group 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.

Sincerely,

/s/ Christopher Bowen
 Managing Director and Chief Regulatory Counsel

- Attachments:
- Exhibit A: NYMEX Rulebook Chapter 434
 - Exhibit B: Position Limits, Position Accountability and Reportable Level Table in Chapter 5 of the NYMEX Rulebook (attached under separate cover)
 - Exhibit C: Exchange Fees
 - Exhibit D: NYMEX Rule 588.H. – (“Globex Non-Reviewable Trading Ranges”) Table
 - Exhibit E: NYMEX Rule 589. – Special Price Fluctuation Limits and Daily Price Limits Table
 - Exhibit F: NYMEX Rule 855. (“Offsetting Positions”) Contracts Eligible for Offset Table
 - Exhibit G: Cash Market Overview and Analysis of Deliverable Supply

Exhibit A

NYMEX Rulebook

Chapter 434 Micro NY Harbor ULSD Futures

434100. 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.

434101. CONTRACT SPECIFICATIONS

The Floating Price for each contract month will be equal to the NY Harbor ULSD Futures contract (HO) final settlement price for the corresponding contract month on the last trading day for the Micro NY Harbor ULSD Futures contract month.

434102. TRADING SPECIFICATIONS

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

434102.A. Trading Schedule

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

434102.B. Trading Unit

The contract quantity shall be 4,200 U.S. gallons. Each contract shall be valued as the contract quantity (4,200) multiplied by the settlement price.

434102.C. Price Increments

Prices shall be quoted in U.S. dollars and cents per gallon. The minimum price fluctuation shall be \$0.0001 per gallon. The maximum price fluctuation shall be consistent with the prevailing price limits of the NY Harbor ULSD Futures contract.

434102.D. Special Price Fluctuation Limits

At the commencement of each trading day, the contract shall be subject to special price fluctuation limits as set forth in Rule 589 and in the Special Price Fluctuation Limits and Daily Price Limits Table in the Interpretations & Special Notices Section of Chapter 5.

434102.E. 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.

434102.F. Termination of Trading

Trading shall cease one business day prior to the termination date of the NY Harbor ULSD Futures contract for the corresponding contract month.

434103. 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.

Exhibit B

NYMEX Rulebook

Chapter 5

(“Trading Qualifications and Practices”)

Position Limits, Position Accountability and Reportable Level Table

(attached under separate cover)

Exhibit C

Exchange Fees

	Member	Non-Member
CME Globex	\$0.30	\$0.60
EFP	\$0.35	\$0.65
Block	\$0.35	\$0.65
EFR/EOO	\$0.35	\$0.65

Processing Fees	Member	Non-Member
Cash Settlement	\$0.30	\$0.60
Facilitation Fee	\$0.06	
Give-Up Surcharge	\$0.05	
Position Adjustment/Position Transfer/Fungibility	\$0.10	

Exhibit D

NYMEX Rulebook

Chapter 5

(“Trading Qualifications and Practices”)

Rule 588.H. (“Globex Non-Reviewable Trading Ranges”) Table

Instrument	Globex Symbol	Globex Non-Reviewable Ranges (NRR)	NRR: Globex Format	NRR: Minimum Ticks	NRR: Globex Format	NRR: Outright Minimum Ticks
<u>Micro NY Harbor ULSD Futures</u>	<u>MHO</u>	<u>\$0.015 per gallon</u>	<u>150</u>	<u>150</u>	<u>Each leg evaluated as an outright</u>	

Exhibit E

NYMEX Rulebook

Chapter 5

(“Trading Qualifications and Practices”)

Rule 589. Special Price Fluctuation Limits and Daily Price Limits Table

Product	Rulebook	Commodity Code	PRIMARY/ASSOCIATED	ASSOCIATED WITH	Dynamically Calculated Variant - All Hours	Daily Price Limit
<u>Micro NY Harbor ULSD Futures</u>	<u>434</u>	<u>MHO</u>	<u>Associated</u>	<u>HO</u>	<u>10% of Dynamically Calculated Reference Price</u>	<u>Daily Price Limit Table</u>

Exhibit F

NYMEX Rulebook

Chapter 8

(“Clearing House and Performance Bonds)

NYMEX Rule 855. (“Offsetting Positions”) – Contracts Eligible for Offset Table

Clearing/ Globex Code	Product Name	Rulebook Chapter	Offset Ratio	Offset to Clearing/ Globex Code	Offset to Product Name	Rulebook Chapter	Cash/ Deliverable	Futures/ Option
BH/ABH	NY Harbor ULSD Bullet Futures	825	0.1	MHO/MHO	Micro NY Harbor ULSD Futures	434	C	F
MHO/MHO	Micro NY Harbor ULSD Futures	434	10	BH/ABH	NY Harbor ULSD Bullet Futures	825	C	F
MHO/MHO	Micro NY Harbor ULSD Futures	434	5	QH/QH	E-mini NY Harbor ULSD Futures	404	C	F
QH/QH	E-mini NY Harbor ULSD Futures	404	0.2	MHO/MHO	Micro NY Harbor ULSD Futures	434	C	F

Exhibit G

Cash Market Overview and Analysis of Deliverable Supply

New York Mercantile Exchange, Inc. (“NYMEX” or “Exchange”) is certifying the initial listing of the following contract:

Contract Title	Commodity Code	Rulebook Chapter
Micro NY Harbor ULSD Futures	MHO	434

The new financially-settled Micro NY Harbor ULSD Futures contract is a referenced contract and will be subject to federal position limits during the spot month. The core referenced futures contract is the NY Harbor ULSD Futures contract (Commodity Code: HO; Rulebook Chapter 150).

Appendix C to part 38 of the Commission’s regulations defines deliverable supply as “the quantity of the commodity meeting the contract’s delivery specifications that can reasonably be expected to be readily available to short traders and saleable by long traders at its market value in normal cash marketing channels at the derivative contract’s delivery points during the specified delivery period, barring abnormal movement in interstate commerce.”

In estimating deliverable supply for the NY Harbor ULSD Futures, NYMEX relied on long-standing precedent, which provides that the key component in estimating deliverable supply is the portion of typical production and supply stocks that could reasonably be considered to be readily available for delivery.

I. Methodology and Data Sources

The Exchange considered four components in evaluating deliverable supply estimates of Ultra Low Sulfur Diesel (“ULSD”) for the New York Harbor delivery location of the NY Harbor ULSD Futures contract:

- A.** ULSD production at Bayway Refinery;
- B.** ULSD deliveries to the NY Harbor on Colonial Pipeline;
- C.** ULSD storage levels in the delivery area;
- D.** ULSD imports and exports into the delivery area.

For production, storage and import/exports, the Exchange determined to use data collected by the U.S. Department of Energy (“DOE”) Energy Information Administration (“EIA”) for its analysis and evaluation of deliverable supply estimates for ULSD in New York Harbor. The EIA provides detailed data on the key components of deliverable supply. The EIA provides such data on a weekly, monthly, and annual basis.

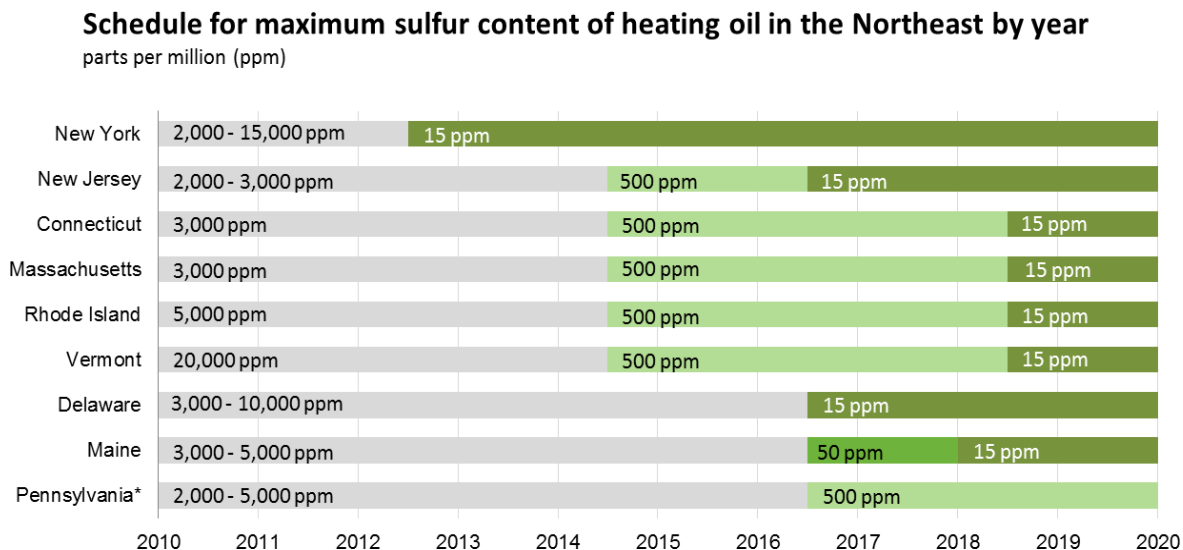
For ULSD pipeline deliveries, the Exchange relied on a combination of public information disseminated by the EIA, Federal Energy Regulatory Commission (“FERC”) as well as private interviews with reliable industry sources with whom the Exchange has had a long-standing relationship.

II. Introduction

ULSD is a distillate fuel that has a dual-use as heating oil and as a transportation fuel. As of December 1, 2010, all on-highway diesel fuel consumed in the United States is ULSD as mandated by federal regulations. Unlike diesel fuel used in transportation, heating oil has no federal sulfur content restrictions. However, various State initiatives to apply comparable sulfur limits to heating oil are in

planning or implementation stages in the Northeast, the main heating oil consuming region. According to the EIA, New England and the Central Atlantic Coast of the United States (collectively known as the “Northeast” for data purposes) are the main consumers of heating oil, typically accounting for 80% of the sales. As of July 1, 2012, New York State mandated that all heating oil sold for residential, commercial and industrial heating applications within the State contain no more than 15 parts per million (ppm) of sulfur. Following New York’s path, Delaware and New Jersey transitioned to 15ppm sulfur content in 2016. As of July 1, 2018, Connecticut, Maine, Massachusetts, Rhode Island and Vermont transitioned to ULSD for heating purposes. Figure 1 below is a summary of the specification changes to Heating Oil by State.

Figure 1 - Heating Oil Sulfur Specification Changes per State¹



The NY Harbor ULSD Futures contract is the main benchmark used for pricing the distillate products market, which includes diesel fuel, heating oil, and jet fuel. The Exchange has amended the grade and quality specifications in response to changes in environmental regulations in the Northeast, requiring cleaner, lower sulfur diesel standards for heating oil. Effective beginning with the May-2013 delivery month, the NY Harbor ULSD Futures contract required delivery of on-road ULSD with a maximum of 15ppm sulfur content.

After transitioning to lower sulfur grade in May-2013, the NY Harbor ULSD Futures serves as a dual-use contract that is a price reference and hedging instrument for both the heating oil and on-road diesel markets. The heating oil pool will eventually be fully integrated into the ULSD market and the widespread adoption of a 15ppm sulfur content limit for heating oil is likely to encourage the development of a seamless ULSD distillate market throughout the entire East Coast, according to the EIA. Consequently, due to the phase-out of high-sulfur heating oil delivery specifications, the Exchange has focused its deliverable supply analysis on the ULSD sector of the distillate fuel market.

New York Harbor (NYH) Delivery Region

New England and the Central Atlantic Coast of the United States, collectively defined by the EIA as the “Northeast,” is a well-connected and integrated geographical region in terms of oil and products infrastructure. The region is part of the larger PADD 1 (Petroleum Administration Defense District).²

Located in both New York and New Jersey, the New York Harbor area is the largest oil importing and

¹ http://www.eia.gov/forecasts/steo/special/winter/2014_winter_fuels.pdf

² <http://www.eia.gov/analysis/petroleum/nerefining/prelim/>

third largest container port in the nation and is the main oil and refined products pricing and trading hub. Petroleum products in New York Harbor are supplied by refineries located in New Jersey, Delaware and Pennsylvania, all located within 100 miles of the New York Harbor area. East Coast refineries, a majority of which are located in New Jersey and Philadelphia, send products by local pipelines into New York Harbor.

Among the refineries serving the NY Harbor area, Bayway refinery is the largest supplier of ULSD. Located on the New York Harbor in Linden, New Jersey, the Phillips-66-owned refinery processes mainly light, low-sulfur crude oil. Bayway's refining units include fluid catalytic cracking (FCC), hydrodesulfurization units, a naphtha reformer, an alkylation unit and other processing equipment. The refinery's total crude capacity is 258,000 barrels per day (b/d), while its ULSD capacity is 108,000-115,000 b/d.³

The Colonial Pipeline is the largest refined products pipeline in the US and a key products supply link for the Northeast. The pipeline connects the Northeast to refinery output from the US Gulf Coast and foreign imports, principally from Canada, Virgin Islands, Caribbean and Europe. Colonial's network of pipelines crosses 11 states, serving more than 260 marketing terminals in the Southern and Eastern United States. The pipeline provides a link from the US Gulf Coast to the New York Harbor area through the south and across the Eastern seaboard. It generally takes from 14 to 24 days for a product batch on the Colonial Pipeline to get from Houston, Texas to the New York Harbor, with 18.5 days the average time. The Philadelphia-area refineries are strategically located along the Colonial Pipeline.

Earlier in 2011, Colonial expanded the northern end of its Houston-to-New York system, adding 100,000 barrels per day (b/d) of capacity. In addition, the company completed a series of system upgrades leading to more than 100,000 b/d of capacity for distillates⁴ specifically serving the New Jersey, Pennsylvania, and New York markets. Also, Colonial Pipeline added an additional 100,000 b/d of gasoline and distillates capacity in early 2013⁵ to meet demand in on the northern portion of the line (Greensboro, NC to Linden, NJ).

The Harbor Pipeline is an approximately 80-mile 171,000 b/d⁶ refined product common carrier pipeline originating near Woodbury, New Jersey and terminating in Linden, New Jersey. It is majority-owned and operated by Sunoco Logistics.

Many of the petroleum products delivered to New York Harbor are redistributed to smaller ports where they supply local demand. In particular, the Hudson River, which meets the Atlantic Ocean in New York Harbor, provides a major inland water route for petroleum product barges supplying eastern New York and parts of western New England. Significant volumes are shipped to New England via barge from New York Harbor. On the other side of the State, western New York product markets are primarily supplied from Canada at the Port of Buffalo, and via the Buckeye and Sunoco Logistics pipeline systems from Pennsylvania and the Midwest.⁷ Figure 2 below illustrates the logistics of refining and products transportation in the Northeast.

³ <http://www.phillips66.com/EN/about/our-businesses/refining/Pages/Bayway-Refinery.aspx>

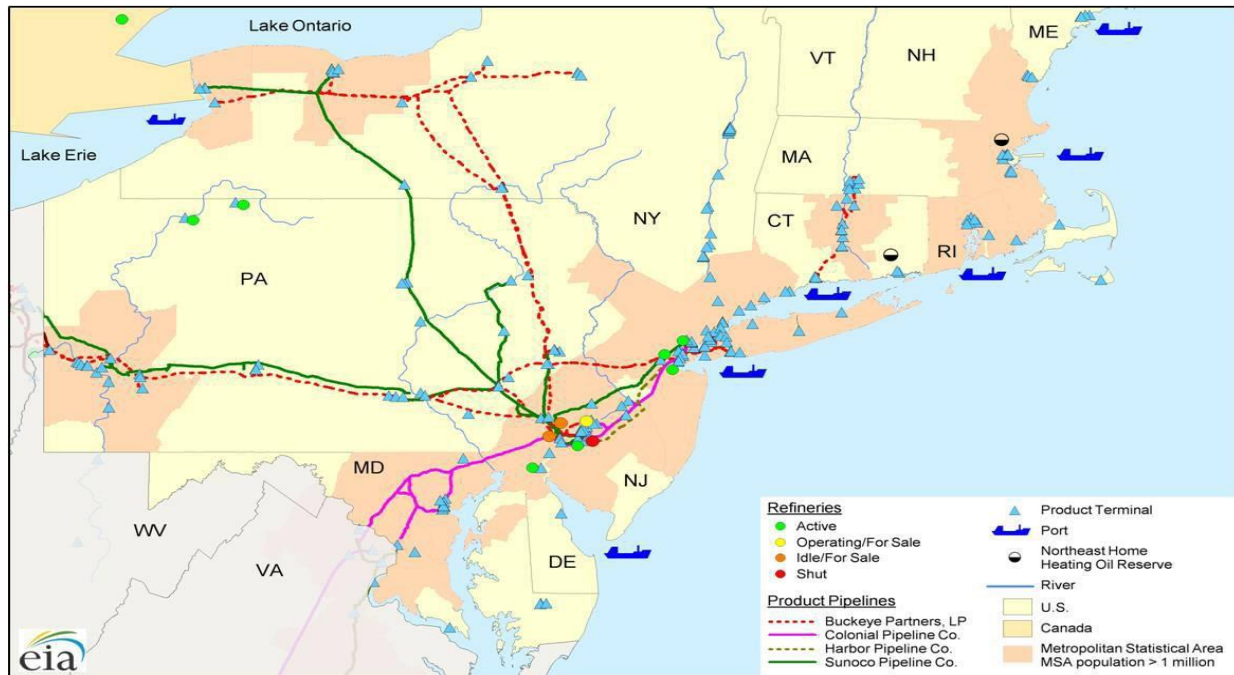
⁴ http://www.eia.gov/pressroom/presentations/sieminski_10102012.pdf

⁵ <http://www.colpipe.com/home/news-media/press-releases/pressdetail?ID=7cb2e327-d0b3-6eb4-9c07-ff00009907dd>

⁶ <http://inveharstor.phillips66.com/financial-information/sec-filings/sec-filings-details/default.aspx?FilingId=11867386>

⁷ <http://205.254.135.7/state/state-energy-profiles-analysis.cfm?sid=NY>

Figure 2 - Northeast Refined Products Market Logistics⁸



As of January 1, 2021, there were 129 operating refineries, in which 124 were operating in the United States with total atmospheric crude oil distillation capacity of 18.1 million barrels per calendar day⁹. On the East Coast (PADD 1), there are seven operable refineries with 818 thousand b/d of atmospheric crude distillation capacity. The region has 310,000 b/d of fluid catalytic cracking (FCC) capacity. PADD 1 includes all states in New England, the Mid-Atlantic, and the South Atlantic and is subdivided into three sub-PADDs.

- PADD 1A – New Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
- PADD 1B – New York, Pennsylvania, New Jersey, Delaware, Maryland, District of Columbia
- PADD 1C - West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida

Supply dynamics for each of the three sub-PADDs vary. PADD 1A, New England, has no refineries and relies on imports and transfers from other PADDs, primarily PADD 1B. PADD 1C, the South Atlantic, also has no operating refineries and relies primarily on pipeline transfers and marine shipments from PADD 3 and imports. PADD 1B is supplied by a combination of in-region refineries, transfers from other PADDs - primarily from PADD 3- and imports.¹⁰

The majority of PADD 1B refineries are located in New Jersey, Delaware and Pennsylvania, and within 100 miles of the New York Harbor area. These refineries are directly connected to the New York Harbor market by local pipelines and/or waterborne barges. A list of Northeast refineries is provided in Table 1.

⁸ <http://www.eia.gov/analysis/petroleum/nerefining/update/pdf/neprodmkts.pdf>

⁹ http://www.eia.gov/dnav/pet/pet_pnp_cap1_dcu_nus_a.htm

¹⁰ http://www.eia.gov/petroleum/refinery/outage/pdf/refinery_outage.pdf

Table 1 – Mid-Atlantic (PADD 1B) Refineries

Name	State	Owner	Capacity	Status
Delaware City Refining Co LLC	Delaware City, DE	PBF Energy Co LLC	171,200 b/d	Operational
Paulsboro Refining Co LLC	Paulsboro, NJ	PBF Energy Co LLC	100,000 b/d	Operational
Phillips 66 Company	Linden, NJ	Phillips 66 Company	258,000 b/d	Operational
American Refining Group Inc	Bradford, PA	American Refining Group Inc	11,000 b/d	Operational
United Refining Co	Warren, PA	Red Apple Group Inc	65,000 b/d	Operational
Monroe Energy LLC	Trainer, PA	Delta Airlines Inc	190,000 b/d	Operational

III. Deliverable Supply Estimates

A. ULSD Production

According to EIA’s “Refinery Capacity by Individual Refinery” data¹¹ as well as data reported by Phillips-66¹², the total distillate fuel capacity at the Bayway refinery is approximately 108,000-130,000 b/d. Industry interviews indicate that almost all of Bayway’s distillate fuel capacity is used for ULSD production. In estimating ULSD production at the Bayway refinery, the Exchange adjusted the capacity figure downward due to seasonal factors, to 108,000 barrels per day. Further, EIA provides operable refinery utilization rates for the “East Coast” area of PADD 1, which is an accurate representation of the utilization rate for the Bayway refinery. EIA’s operable utilization rates represent the utilization of the atmospheric crude oil distillation units and are calculated by dividing the gross input to these units by the operable calendar day refining capacity of the units. Accordingly, the EIA refinery utilization rate is 71.6% utilization for the three-year period of 2019 through 2021¹³ (71.3.0%, 60.0% and 83.6% respectively). Finally, according to industry sources at Phillips 66, it was explained that approximately 10,000 barrels per day of ULSD production are committed to long-term customers. Therefore, after accounting for long-term commitments, the net ULSD production at Bayway Refinery is estimated at 67,328 b/d, or approximately 2.02 million barrels per month.

Table 2 - Bayway Refinery Production

ULSD Capacity (b/d)	Capacity Utilization (3-Year Average)	Net ULSD Production (b/d)	ULSD Production committed to Long-Term Contracts (b/d)	Net ULSD Production Barrels per Month
108,000	71.6%	77,328	10,000	2,019,840

B. ULSD Deliveries

The main pipeline supplying ULSD to the NY Harbor market is the Colonial Pipeline. Data for precise ULSD flows are not publicly shared by pipeline operators, however the Exchange estimated these figures using a combination of publicly available data and industry interviews.

¹¹ Refinery Capacity by Individual Refinery Data: <https://www.eia.gov/petroleum/refinerycapacity/refcap21.xls> under the category “desulfurization, diesel fuel”

¹² <http://www.phillips66.com/EN/about/our-businesses/refining/Pages/Bayway-Refinery.aspx>

¹³ http://www.eia.gov/dnav/pet/pet_pnp_unc_dcu_rec_a.htm

To estimate the amount of ULSD on the Colonial Pipeline, the Exchange took a five-step approach.

- Step 1: The Exchange collected data on distillate fuel oil delivered on the pipeline as reported to the FERC in Form 6 for years 2019-2021.¹ These reports are designed to collect both financial and operational informational from oil pipeline companies subject to FERC jurisdiction. Table 3 illustrates total deliveries in barrels per year. Accordingly, the three-year average is reported at 271,057,489 barrels.

Table 3 – Colonial Pipeline Distillate Fuel Deliveries

	Total Delivered Out (YTD Barrels)
2019	280,507,795
2020	287,406,116
2021	245,258,556
Average	271,057,489

- Step 2: To estimate the portion of shipped distillates that is ULSD, the Exchange used the percentage of ULSD shipments for PADD 1 as reported by the EIA. The Exchange believes that the share of ULSD out of total distillates shipped from PADD 3 to PADD 1 is representative of the ULSD shipments on the Colonial Pipeline. As illustrated in Table 4 below, in the 2019-2021 timeframe, total distillates shipped from the Gulf Coast (PADD 3) to PADD 1 averaged at 310,658,000 barrels² per year. In the same time period, the ULSD (0-15 ppm Sulfur) shipments from PADD 3 into PADD 1 averaged at 298,654,000 barrels³ per year, which is 96.15% of all distillates.

Table 4 – PADD 1 Receipts by Pipeline, Tanker and Barge from PADD 3 (Thousand Barrels)

	ULSD (0-15 ppm)	Total Distillates	%ULSD
2019	299,756	315,207	95.10%
2020	314,061	325,632	96.45%
2021	282,145	291,134	96.91%
Average	298,654	310,658	96.15%

- Step 3: To estimate ULSD shipments specific to the Colonial Pipeline, the Exchange applied the ULSD percentages applicable to PADD 1 from Step 2 above on total ULSD distillate fuel

¹ See Page 601.2, Line 19, Column (i) at:

FERC Form 6 2019, page 601.2 box i19, <https://elibrary.ferc.gov/eLibrary/filedownload?fileid=15513650>

FERC Form 6 2020, page 600 box i33, <https://elibrary.ferc.gov/eLibrary/filedownload?fileid=020CD8A3-66E2-5005-8110-C31FAFC91712>

FERC Form 6 2021, page 601.2 box i19, <https://elibrary.ferc.gov/eLibrary/filedownload?fileid=9DDCCC5F-E2E1-C84F-9260-803E93F00000>

² <http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=mdimxp1p31&f=a>

³ http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=md0mx_r10r30_1&f=a

deliveries from Step 1. Table 5 below shows that approximately 260,544,320 barrels of ULSD per year which is equivalent to 21,712,027 barrels per month was shipped on the Colonial Pipeline in the 2019-2021 timeframe.

Table 5 – Colonial Pipeline ULSD Deliveries

	Total Delivered (Step 1)	% ULSD (Step 2)	ULSD Shipped on Colonial Pipeline (Barrels)	ULSD Shipped on Colonial Pipeline (Barrels per Month)
2019	280,507,795	95.10%	266,757,701	22,229,808
2020	287,406,116	96.45%	277,189,261	23,099,105
2021	245,258,556	96.91%	237,685,998	19,807,166
Average 2019- 2021			260,544,320	21,712,027

- Step 4: Previously, the Exchange calculated the amount of ULSD that was shipped on the Colonial Pipeline and delivered to the NY Harbor market, which is the terminus of the Colonial Pipeline. This calculation methodology was based on the surcharge that was assessed by FERC on ULSD shipments on Colonial Pipeline for the time period of 2014 through 2016. This ULSD surcharge was a temporary fee that was mandated by FERC and publicly reported by Colonial Pipeline for all ULSD shipments during the time period of 2014 through 2016. This FERC surcharge was discontinued at the end of 2016. Based on this reported surcharge data, the Exchange was able to calculate the amount of ULSD that was shipped on Colonial Pipeline and delivered in NY Harbor. Not all ULSD shipped on Colonial Pipeline is delivered to the NY Harbor delivery region, so the Exchange performed a calculation to estimate the NYH-delivered ULSD shipments using FERC Form 6 and tariff data. Per FERC Order IS07-86⁴ ULSD that was delivered south of Philadelphia to the Colonial Pipeline terminal in Booth, PA was subject to an annual total surcharge that was reported to the FERC through Form 6⁵ for the time period of 2014 through 2016.

According to Table 6 below, in the 2014-2016 timeframe, the ULSD surcharge on the Colonial Pipeline averaged \$8,837,556. In addition, on January 1, 2017, Colonial Pipeline discontinued the ULSD surcharge, therefore the Exchange used the time period of 2014 – 2016 for which the surcharge data is available.⁶ This FERC surcharge data provides valuable information that can be used to calculate the amount of ULSD that is delivered to the NY Harbor market on the Colonial Pipeline.

Table 6 – Colonial Pipeline Surcharge for ULSD Deliveries South of Booth, PA

	Total Surcharge (\$)
2014	7,666,428
2015	9,319,899
2016	9,526,342
Average	8,837,556

⁴ https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20061228-0167

⁵ See Schedule Page 300, Line 2, Column C at:

FERC Form 6 2013, page 601.2 box i19, https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20140418-8063

FERC Form 6 2014, page 601.2 box i19, https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20150417-8045

FERC Form 6 2015, page 601.2 box i19, https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20160418-8033

⁶ Docket Number IS17-106, https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20161220-5087

To calculate the number of ULSD barrels subject to the surcharge, the Exchange used a per barrel surcharge rate applicable to each year. These rates are reported to the FERC via tariff schedules⁷ and illustrated in Table 7 below. The average surcharge was calculated by taking an average of the surcharges that were in place, weighted by how long they were in effect over the course of the year. In 2014, the surcharge of \$0.04 was in effect for the first half of the year (January-June) and the surcharge of \$0.054 was in effect for the second half of the year (July- December) so the weights are equally distributed. In 2015, there were three reported surcharges; the surcharge of \$0.054 was effective for the first half of the year (January - June) while the surcharge of \$0.056 was effective July-December, so despite having only three reported surcharges instead of four, the weights are also distributed equally. In 2016, there were four reported surcharges in which the rate remained unchanged. For the 2014-2016 timeframe, the average surcharge rate per barrel was \$0.053.

Table 7 – Colonial Pipeline ULSD Surcharge Rate for Delivery South of Booth

Year	Docket Number	Reported Surcharge (per barrel)	Average Annual Surcharge
2014	IS14-122	\$0.040	\$0.047
2014	IS14-272	\$0.040	
2014	IS14-516	\$0.054	
2014	IS14-673	\$0.054	
2015	IS15-51	\$0.054	\$0.055
2015	IS15-124	\$0.054	
2015	IS15-403	\$0.056	
2016	IS16-61	\$0.056	\$0.056
2016	IS16-258	\$0.056	
2016	IS16-628	\$0.056	
2016	IS16-694	\$0.056	

Dividing total surcharge by average surcharge rate gives the estimated ULSD shipments south of Booth, PA as displayed in Table 8. ULSD barrels delivered North of Booth, PA were calculated by subtracting ULSD barrels delivered South of Booth from the total ULSD shipped on Colonial Pipeline as shown in Table 5. This calculation derives the amount of ULSD that is shipped North of Booth, PA on Colonial Pipeline to the NY Harbor market. The calculation results as performed by the Exchange are displayed in Table 8 below. The Exchange estimated the total ULSD shipments delivered North of Booth, PA to be 105,360,102 barrels per year in 2014-2016. This is equivalent to 8,780,008 barrels of ULSD per month shipped on the Colonial Pipeline to destinations that are North of Booth, PA. which is approximately 40% of the total amount of ULSD shipped on the Colonial Pipeline as reported in Table 5 above.

⁷ To locate these documents, go to <http://elibrary.ferc.gov/idmws/search/fercgensearch.asp> For the "Date Range" field, select "All". In the "Docket Number" field, type the relevant Docket Numbers provided in Table 7. Then click "Submit" at the bottom. The result will be the full docket file. In the furthest right column, click "FERC Generated PDF". In the PDF, search for Item 125 and the surcharge is found within the text.

Table 8 – Colonial Pipeline ULSD Barrels

	Total Surcharge (\$)	Surcharge Rate per Barrel	ULSD Barrels South of Booth	ULSD Barrels North of Booth (Annual)	ULSD Barrels North of Booth (Monthly)
2014	7,666,428	0.047	163,115,489	95,514,435	7,959,536
2015	9,319,899	0.055	169,452,709	119,179,504	9,931,625
2016	9,526,342	0.056	170,113,250	101,386,367	8,448,864
Average	8,837,556	0.053	167,560,483	105,360,102	8,780,008

- As the last step in estimating the amount of ULSD shipped on the Colonial Pipeline and delivered to the NYH area, the Exchange reduced the amount of ULSD shipments delivered North of Booth, PA to account for ULSD barrels supplied by Philadelphia refiners to the Pennsylvania market that are not destined for the NYH market. According to the EIA Prime Suppliers Sales Volumes data⁸ for Pennsylvania in 2019-2021, sales of total distillates from Pennsylvania refineries averaged 6,149,700 gallons per day (or 146,421 barrels per day), which is equivalent to 4,392,643 barrels per month. The EIA data reports the volume of total distillates supplied to Pennsylvania, of which around 90% or more is ULSD. To arrive at the estimated amount of ULSD shipped on the Colonial Pipeline to the NYH area (excluding Philadelphia refinery supplies), the Exchange subtracted 4,392,643 barrels from 8,780,008 from Table 8 to obtain 4,387,365 barrels per month.

Previously, based on the FERC surcharge data for the three-year period from 2014-2016, the Exchange estimated 8,780,008 ULSD barrels per month were shipped north of Booth, PA in the Philadelphia area which represented approximately 40% percent of total Colonial Pipeline ULSD shipments from PADD 3 to PADD 1.

Although Colonial Pipeline discontinued the FERC surcharge on ULSD as of January 1, 2017, the Exchange believes the percentage of pipeline shipments on average has remained fairly constant and is still a reliable estimate of the amount of ULSD that reaches NYHr which is the end point of the Colonial pipeline.

To be conservative, the Exchange did not decrease the total distillates supplied by Pennsylvania refiners because ULSD accounts for over 90% of total distillates shipped to PADD 1. Therefore, the previous surcharge methodology is still valid for determining the percentage of ULSD shipments that flow on the Colonial Pipeline to the NY Harbor market. Therefore, the Exchange has determined that the total ULSD supplied to NY Harbor via Colonial Pipeline is 4.39 million barrels per month.

C. Inventories of ULSD in the New York Harbor (NYH) Market

New York Harbor has a petroleum bulk terminal storage capacity of over 75 million barrels, making it the largest petroleum product hub in the country. For the purposes of ULSD delivery in NYH against the NYMEX's NY Harbor ULSD Futures contract, the Exchange has 17 approved delivery terminals. Based on conversations with these facilities the total cumulative working tank capacity for ULSD at all Exchange-approved delivery terminals equals 19,634,293 barrels. Table 9 below details the list of facilities approved by the Exchange.

⁸ <https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=C200012421&f=A>

Table 9 – ULSD Facilities in NY Harbor

Name of Facility	Facility Code
PHILLIPS 66 - TREMLEY POINT	E78
INTERNATIONAL MATEX TANK TERMINAL (IMTT) - BAYONNE	E79
BUCKEYE PERTH AMBOY TERMINAL LLC	E80
BUCKEYE BRONX TERMINAL	E81
CITGO - LINDEN	E82
FEDERAL TERMINAL - ELIZABETH	E84
KINDER MORGAN - CARTERET	E85
KINDER MORGAN - CARTERET TRUCK RACK	E76
BUCKEYE PORT READING TERMINAL LLC	E86
SPRAGUE - BRONX SEC TERMINAL	E88
SHELL OIL PRODUCTS US - SEWAREN	E89
SHELL OIL PRODUCTS US - NEWARK	E83
ST TERMINAL - LINDEN	E91
BUCKEYE BAYONNE TERMINAL	E92
KINDER MORGAN - PERTH AMBOY	E94
BUCKEYE RARITAN BAY TERMINAL LLC	E96
PHILLIPS 66 - BAY WAY	E97
CENTER POINT TERMINAL NEWARK, LLC	E99

In addition to commercial stocks held in New York Harbor terminals, the Northeast Home Heating Oil Reserve (NEHHOR), which was established in 2000 to provide heating fuel supply security in the Northeast, has a one-million-barrel supply of ultra low sulfur diesel. The ULSD is stored in four terminals in the NY Harbor area: Groton, Connecticut, Port Reading, New Jersey, Chelsea and Revere, Massachusetts.

The three-year average of ULSD stocks held in the Central Atlantic, or PADD 1B, region is approximately 21.74 million barrels (See Table 10). According to market participants, the New York Harbor area, which includes storage terminals in New York and New Jersey, accounts for 50% to 60% of the inventories reported in EIA's PADD 1B statistics. Using a conservative estimate of 50% of PADD 1B inventories, the average stock level of ULSD is estimated to be approximately 10.87 million barrels in New York Harbor.

Table 10 – Central Atlantic (PADD 1B) ULSD Stocks

Thousand Barrels (Annual Averages using Weekly Data)	PADD 1⁹	PADD 1B¹⁰ (Central Atlantic)
May 2019 – April 2020	35,801	18,454
May 2020 – April 2021	54,142	30,206
May 2021 – April 2022	34,229	16,549
Average	41,391	21,736

Based on estimates from industry experts, we determined that the operational minimum levels for storage tanks in the New York Harbor area are approximately 5% to 10%. Using the more conservative

⁹ http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WD0ST_R10_1&f=W

¹⁰ http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=WD0ST_R1Y_1&f=W

estimate of 10%, we therefore estimate that approximately 1.09 million of the 10.87 million barrels of stored ULSD are used for operational purposes, leaving approximately 9.78 million barrels available for spot month delivery. While the majority of ULSD in storage is available in the spot market, the Exchange applied a 20% reduction on storage figures to account for long-term agreements to arrive at a final 7.83 million barrels per month figure.

D. Imports and Exports

The New York Harbor area is the largest oil import hub in the US. According to the EIA's import data by port of entry,¹¹ ULSD imports into the New York Harbor area (which encompasses New Jersey and New York ports) averaged 70,000 barrels per day for the three-year period of March 2019 through February 2022. Further, ULSD exports from PADD 1 averaged 16,400 barrels per day for the same three-year period.¹² Based on conversations with industry experts, the Exchange believes that approximately 30% of the exports figure represents the NYH delivery area. Therefore, applying a 70% reduction to exports resulted in 4,900 b/d in NYH. As a result, the net imports figure for March 2019 - February 2022 was 65,100 barrels per day, or 1.95 million barrels per month.

Based on the above analysis, the Exchange determined at this time to base its estimates of deliverable supply on the sum of:

- A. *Bayway Refinery Production: 2.02 million barrels per month*
- B. *ULSD Deliveries on Colonial Pipeline: 4.39 million barrels per month*
- C. *ULSD Storage: 7.83 million barrels per month*
- D. *Net Imports: 1.95 million barrels per month*

The Exchange estimates the monthly deliverable supply of ULSD to the NYH to be approximately 16.19 million barrels, which is equivalent to **16,187** contracts per month (contract size 42,000 gallons or 1,000 barrels). Twenty-five percent of deliverable supply would result in a spot month position limit of 4,047 futures equivalent contracts. The Exchange and Federal spot month position limit for the NY Harbor ULSD Futures contract is 2,000 contracts or **12.4%** of the estimated monthly deliverable supply.

For purposes of calculating compliance with position limits, the Micro NY Harbor ULSD Futures contract aggregates into the financially-settled NY Harbor ULSD Last Day Financial Futures contract (code: 23) at a ratio of 10:1.

¹¹ <http://www.eia.gov/petroleum/imports/companylevel/archive/>

¹² https://www.eia.gov/dnav/pet/pet_move_exp_dc_R10-Z00_mbbldpd_m.htm