

OLYMPIC PIPE LINE COMPANY

PIPELINE SPECIFICATIONS MANUAL



(Supersedes Previous Versions)
Version 2.0
Revised September 2009
Includes latest updates as of 11/14/2025

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Change Log

6/28/2020	2.B	2-2, 2-3	Added Nalco 5403 and instructions on adding/changing an additive
6/28/2020	2.L	2-16	Changed scraper frequency to annually
6/28/2020	4.B	4-6	Added note 9
6/28/2020	4.D	4-10	Added note 9
6/28/2020	4.E	4-11	Added note 14
6/28/2020	4.F	4-13	Added notes 13 and 14
6/28/2020	4.G	4-15	Added note 8
6/28/2020	4.H	4-17, 4-18	Added notes 7 and ASTM D-1655 Footnote "O"
6/28/2020	4.I	4-20, 4-21	Added notes 7 and ASTM D-1655 Footnote "O"
6/28/2020	4.J	4-22	Added note 11
6/28/2020	6.B	6-4	Added T4 instruction for nominations and updated GEQ for Jet Seg1 = 1.6
6/28/2020	6.F	6-18, 6-19	Updated with RCC OMER 2 revisions
6/28/2020	2.M	2-17, 2-18	Updated with current language
6/28/2020	6.G	6-20	Added T4 instruction for ticket distribution and pricing publishers holiday info
6/28/2020	2.D	2-4	Added "Ambient Temperature"
6/28/2020	All Products in Section 4		Aligned with D4176 and Ambient Temperature notations
6/28/2020	2.E	2-6	Deleted Hydro Kit; Added Shell Water Detector and Hydro-Light.
6/28/2020			Removed Olympic Org chart, Mission statement
7/2/2020	4.F	4-12	Added missing "B+" for NACE rating
11/30/2020	2.B	2-2	Administrative change removing contact Name
11/30/2020	6.J	6-28	Administrative change removing contact Name
11/30/2020	5	5-1	Redirected Tariff requests to BP website
11/30/2020	1.E	1-10	Removed Inactive Shippers: Idemitsu Apollo, IPC Inc. and added new Shippers: Parkland and Mansfield
11/30/2020	4.F	4-12	Administrative correction of flash to 105 degrees F
2/8/2021	3.C	3-4	Added Cycle Plan

2/8/2021	4.A – 4.D	4-2 through 4-11	A number of changes related to implementing 40 CFR part 1090 were made to align with the new regulation. ASTM Test Methods were updated and referenced therein, including the addition of Benzene, Vol % ASTM D5796 and Mercaptan Doctor Test, Sweet minimum. It was also noted product is subject to DRA injection.
2/8/2021	4.E-4.G, 4.J	4-12 through 4-17, 4-26, 4-27	A number of changes related to implementing 40 CFR part 1090 were made to align with the new regulation. ASTM Test Methods were updated and referenced therein. It was also noted product is subject to DRA injection.
5/3/2021	1.C	1-7, 1-8	Change in Product names as per EPA regs
9/1/2021	1.C	1-8	Removed “2014” from reference to NIST Handbook 130
8/27/2021	2.B	2-2, 2-3	Added All D 1655 Antioxidants and Metal Deactivator Additive.
9/1/2021	2.C	2-3	Changed term from “all” to “pertinent” EPA regulations
8/27/2021	2.D	2-4	Added Distillation and Viscosity tests.
8/30/2021	2.E	2-6	Grammatical changes
8/30/2021	2.F	2-7	Added ASTM D 396 and grammatical changes
8/30/2021	2.G	2-9	Added sample types
8/30/2021	2.H	2-10	Added Scheduling email address
9/1/2021	4.A through 4.D	4-2 through 4-11	Added D3606 Benzene and added Note 11
9/1/2021	4.E	4-12, 4-13	Revised formatting. Added note (15) to top of sheet.
9/3/2021	4.F	4-14	Added D6045 Color. Added Note (9) to top of sheet.
9/3/2021	4.G	4-16	Revised formatting only: Moved Note (8) and added Note (9) to top of sheet
8/26/2021	4.H,4.I		Added latest ASTM D1655 revised footnotes
9/3/2021	4.J	4-26,4-27	Added “Note (12) This product code will be subject to Drag Reducing Additive (DRA) injections.
10/23/2021	1.E	1-10	Added Parkland, Idemitsu Apollo and HollyFrontier
11/1/2021	1.D	1-9	Changed E-Shell to E-HollyFrontier

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11/5/2021	1.C	1-8	Added D96
11/5/2021	4.K	4-26	Added new spec sheet for D96
11/5/2021	6.C	6-12	Noted reduced cycles to Segment 3 jet liftings
11/5/2021	6.B, 6.G	6-5, 6-17	Updated procedures to include Transport 4 and Olympic contact information
11/5/2021	6.B		Updated Olympic contact information
12/3/2021			Deleted Appendix of archived products
12/3/2021	1.C	1-8	Added D91
12/3/2021	4.L	4-28	Added D91 spec sheet
12/19/2021	4.F	4-12, 4-13	Updated amount of Jet allowed on Segment 3.
12/19/2021	6.C, 6.E	6-12, 6-14	Removed Nace rating requirement
2/1/2022	1.E	1-11	Added Marathon
3/21/2023	2-B	2-3	Athlon Haliburton RPS-899: Copper and Silver Corrosion inhibitor
3/30/2022	3.B	1-3	Added RVP language to accept 9.0 RVP summer gasoline with Letter of Indemnification.
4/21/2022	Index		Corrected NTDF on D95 and D96
4/21/2022	1.C	1-8	Corrected NTDF on D95 and D96
4/21/2022	1.E	1-11	Added Tartan Oil LLC
1/26/2023	2.D.7	2-8	Replaced RVP language with State/Federal centric text.
1/30/2023	1.E	1-7	Remove Inactive Shippers: Idemitsu Apollo, Parkland, Mansfield, Apex, U.S. Oil
5/26/2023	1.E	1-7	Added Sun Valley Energy
6/12/2023	3.A, 3.B	3-2, 3-3	Adjusted all RVP's to be expressed in tenths of a psi: 0.0, not 0.00 psi
7/31/2023	4.H, 4.I	4-18, 4-23	Removed °F from Freezing Point Test
7/31/2023	4.H, 4.I	4-19, 4-24	Removed Color Patch Test
7/31/2023	6.B, 6.C	6-3, 6-10, 6-11	Delineated Open Nominations and Nominations when Prorated prior to accepting nominations.
7/31/2023	6.C	6-12	Aligned Tacoma Strip rate limits with Open Nominations and Nominations when prorated prior to accepting nominations.
7/31/2023	6.E	6-14	Updated available space process with regards to Transport 4 process and seg3 Jet fuel and removed 60K option.
7/31/2023	6.C	6-12	Returned Seg3 Jet Fuel allocation to all cycles with 50,000 barrel per cycle maximum by source/segment.
7/31/2023	4.A, 4.B, 4.C,	4-2, 4-4, 4-7, 4-9	Added DVPE EPA equation April- September and ASTM equation October-March

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	4.D		
7/31/2023	6.I	6-22	Changed Olympic part owner to ArcLight
8/21/2024	4.H, 4.I	4-17, 4-21	Updated ASTM D1655 footnotes to latest revision
8/21/2024	4.A, 4.C	4-2,4-3, 4-7,4-8	Distillation 50% minimum for classes D&E
8/21/2024	4.A, 4.C	4-2,4-3, 4-7,4-8	Updated D 4814 Table 1 footnotes- F and G
8/24/2024	3.A	3-2,3-3	WA RVP winter phase up after 9/16 Note 3
8/24/2024	1.D	1-10	Terminal S1 name FSM
8/24/2024	1.E	1-11	Inactive shippers: RP,SV and TO
8/24/2024	1.E	1-11	New shipper: SN
8/24/2024	6.B	6-6	Clarification on Schedule Change and Late Fees
10/10/2025	1.E	1-13	Inactive shippers: IA
10/10/2025	1.E	1-13	Re-activate SV as new shipper
10/10/2025	4.A,4.B,4.C,4.D	4-2,4-5,4-8,4-11	Increased maximum gasoline API gravity
10/10/2025	4.H, 4.I	4-19 to 4-37	Added Jet SAF specifications
10/10/2025	1.C	1-8, 1-9	Added Jet SAF definitions
10/10/2025	1.C	1-7	Clarified Gasoline Code use of RVP 10 th and 100 th decimal place
11/14/2025	4.G	4-19	Revised Hydrogen Sulfide Max specification
11/14/2025	4.H, 4.I	4-22, 4-31	Corrected typographical errors T50/T90
11/14/2025	4.H, 4.I	4-21, 4-30	Added clarification to gravity test section
11/14/2025	4.H, 4.I	4-25, 4-26, 4-33,4-34 in Notes 11 and14	Clarification on tank stratification
11/14/2025	4.H, 4.I	4-28, 4-37 in Note (G)	Clarification on viscosity

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SECTION 1

DEFINITIONS

SECTION 1.A

TERMS AND DEFINITIONS

As used in this manual, the following terms and abbreviations are defined as follows:

Accounting Batch (ABID)

A batch identifies a single shipper. It is at least a portion if not all of an operational batch.

Actual Volume

This volume is accumulated from the actual custody transfer tickets.

Allocation Report

Percentage of the space on the line offered to each shipper. This is computed each period for each shipper according to the provisions of the pro-ration policy.

Barrel (net)

A measurement of 42 United States gallons at 60 degrees Fahrenheit and zero psi gauge.

Batch

A quantity of petroleum product of like characteristics moved through the pipeline as an identifiable unit. It is either an accounting batch or operational batch.

Business Days

For scheduling purposes, a normal business day is Monday – Friday 8:00 am to 4:00 pm Pacific Time not including Olympic Pipe Line Co. observed holidays.

Carrier

Olympic Pipe Line Company

Certificate of Analysis

An official laboratory document, generated from a representative sample of fuel, to be tendered into the Olympic Pipe Line Company system, and meeting the product code specifications.

Cycle

A cycle is a predefined order of lifting products into the pipeline, enabling each source access to all segments. Cycles divide the period into roughly equal time intervals of five to seven days.

Cycle/Source-Segment

A methodology used to determine pro-rationing by cycle, and source per segment. This allows for maximum flexibility in nominations to maximize line utilization. For example, if Segment 1 in Cycle 3 is prorated and Cycle 2 is not, the shipper will be asked to change the nomination from cycle 3 to cycle 2. Thus, reducing the need to cut barrels and using more of the capacity of the pipeline.

Delivery facility

The carrier's valves, piping and other appurtenances which provide connection from the pipeline system to a terminal's tank(s).

Available Space

Space that becomes available during the nomination or scheduling period is called Available Space.

Fungible Batch

A batch defined as a petroleum product meeting Carriers' specifications which may be commingled with other petroleum products meeting the same specifications.

Fungible Product

A product defined as a product that is allowed to be contained within a Fungible Batch. Multiple Shippers from separate sources may contribute to this fungible batch with products meeting the same specifications.

Gasoline Equivalent Factor (GEQ)

Different products move through the pipeline at different maximum rates. All volumes are normalized to the gasoline equivalent volume for specific line segments.

Minimum Batch Size

From a Source: The minimum accounting batch size that can be lifted into the line is 10,000 barrels.

To Delivery Facilities: The minimum accounting batch size that can be delivered to a terminal in segment 1 is 5,000 barrels, segment 2 is 3,000 barrels and segment 3 is 4,000 barrels

Nomination Period

The period when nominations are processed into the forecast beginning with issuing of the Nominations Detail Letter and closing when all nominations are accepted after the nominations due date.

Operational Batch (OBID)

One or more accounting batches meeting the specification of the same product code combined into one batch for Carriers operational processes.

Performance Factor

The ratio of actual product delivered to the nominations in the prior period. This factor is applied to the shippers' allocations.

Period

Each period is identified with a month as a letter designation as in A = January, B = February etc. The actual number of days in the period may cross over calendar month boundaries. E.g. February Period could be defined as actual days 1/31 – 3/2.

Petroleum products

Gasoline and petroleum oil distillates as defined in Olympics' published tariffs.

Pipeline Capacity

The pipeline has a maximum space available for each cycle and segment. This space is the basis for accepting nominations.

Point of origin

The specific location on carrier's system as designated in its tariff(s) where carrier accepts petroleum products for shipment. Specifically, Olympics' points of origin are Cherry Point, Ferndale, and Anacortes.

Pro-ration

The sum of all shipper nominations that are submitted exceeds the pipeline capacity being offered for a given period. (Ex: the capacity of the pipeline for June is 5,000,000 barrels. Shipper nominations for June are 6,000,000 barrels. At this point, we would go into pro-rationing, and each shipper would be given an allocation based on the previous 12 months history)

Segment

An operational portion of the Olympic system.

Segment 1

Destination points are Bayview Products Terminal, Renton, Seattle, and Sea-Tac.

Segment 2

Destination points are Tacoma.

Segment 3

Destination points are Vancouver, Linnton and Portland.

Note: Only Segments 1 and 3 may be prorated. Volumes into segment 2 are offered up to the maximum strip rates, which are dependent upon batch sizes being delivered to Segment 3.

Segregated Product

Product that meets Carriers' specifications transported at the Shippers request as a Segregated Batch.

Segregated Batch

Defined as a batch identifiable as the property of a single shipper and moved through the pipeline to maintain this singular identity and ownership.

Shipper (of record)

The party who contracts with the carrier for transportation services under carrier's published tariff and other rules and regulations in effect.

Shipper: Active

A shipper who has made any deliveries within the past twelve months.

Shipper: Inactive

A shipper that has not had a record of deliveries in the prior twelve months.

Shipper: New

A shipper, who has not shipped on Olympic Pipe Line in the prior twelve months. A new shipper is given an allocation of 50,000 barrels per month starting twelve months prior to being accepted as a shipper. This allocation volume will increase or decrease, based on shipper's performance. (i.e. Cutting volume, or taking advantage of Available Space offerings to increase historical volume) After shipper is given the 50,000 barrels per month, subsequent months will be subject to the proration policy. A new shipper has active status.

Supplier

The party, at point of origin, physically making delivery of the product shipment.

Ticket (custody transfer)

The document written by the carrier which indicates the measured quantity of product for a specific transaction. Olympic Pipe Line Company tickets are furnished (1) to the shipper of record and (2) at points of origin to the supplier and (3) to the terminal at delivery facilities.

SECTION 1.B

ABBREVIATIONS

API	American Petroleum Institute
ASTM	American Society of Testing and Materials
No.	Number
psig	pounds per square inch gauge
psia	pounds per square inch absolute
GEQ	Gasoline Equivalent

SECTION 1.C

PRODUCT CODES

MOTOR GASOLINE

Code	Grade: Nominate RVP in tenths	Characteristics: Report RVP results to OPL in hundredths per ASTM
P01	Premium CG RVP 7.8	92.0 octane, DVPE <7.80 psi
P02	Premium CG RVP 9.0	92.0 octane, DVPE <9.00 psi
P04	Premium CG RVP 11.5	92.0 octane, DVPE <11.50 psi
P05	Premium CG RVP 13.5	92.0 octane, DVPE <13.50 psi
P06	Premium CG RVP 15.0	92.0 octane, DVPE <15.00 psi
P11	Premium CG Subgrade RVP=7.8	Certified in any combination of: Base: =>89.5 octane, Volatility/W DVPE<7.80 psi Handblend 10% EtOH: =>92.0 octane, Volatility/W DVPE<8.80 psi
P12	Premium CG Subgrade RVP=9.0	Certified in any combination of: Base: =>89.5 octane, Volatility/W DVPE<9.00 psi Handblend 10% EtOH: =>92.0 octane, Volatility/W DVPE<10.00 psi
P14	Premium CG Subgrade RVP=11.5	Certified in any combination of: Base: =>89.5 octane, Volatility/W DVPE<11.50 psi Handblend 10% EtOH: =>92.0 octane, Volatility/W DVPE<8.80 psi
P15	Premium CG Subgrade RVP=13.5	Certified in any combination of: Base: =>89.5 octane, Volatility/W DVPE<13.50 psi

		Handblend 10% EtOH: =>92.0 octane, Volatility/W DVPE<14.50 psi
P16	Premium CG Subgrade RVP=15.0	Certified in any combination of: Base: =>89.5 octane, Volatility/W DVPE<15.00 psi Handblend 10% EtOH: =>92.0 octane, Volatility/W DVPE<16.00 psi
R01	Regular CG RVP 7.8	87.0 octane, DVPE <7.80 psi
R02	Regular CG RVP 9.0	87.0 octane, DVPE <9.00 psi
R04	Regular CG RVP 11.5	87.0 octane, DVPE <11.50 psi
R05	Regular CG RVP 13.5	87.0 octane, DVPE <13.50 psi
R06	Regular CG RVP 15.0	87.0 octane, DVPE <15.00 psi
R11	Regular CG Subgrade RVP=7.8	Certified in any combination of: Base: =>83.5 octane, Volatility/W DVPE<7.80 psi Handblend 10% EtOH: =>87.0 octane, Volatility/W DVPE<8.80 psi
R12	Regular CG Subgrade RVP=9.0	Certified in any combination of: Base: =>83.5 octane, Volatility/W DVPE<9.00 psi Handblend 10% EtOH: =>87.0 octane, Volatility/W DVPE<10.00 psi
R14	Regular CG Subgrade RVP=11.5	Certified in any combination of: Base: =>83.5 octane, Volatility/W DVPE<11.50 psi Handblend 10% EtOH: =>87.0 octane, Volatility/W DVPE<8.80 psi
R15	Regular CG Subgrade RVP=13.5	Certified in any combination of: Base: =>83.5 octane, Volatility/W DVPE<13.50 psi Handblend 10% EtOH: =>87.0 octane, Volatility/W DVPE<14.50 psi

R16	Regular CG Subgrade RVP=15.0	Certified in any combination of: Base: =>83.5 octane, Volatility/W DVPE<15.00 psi Handblend 10% EtOH: =>87.0 octane, Volatility/W DVPE<16.00 psi
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FUELS

Code	Grade	Characteristics
J84	Jet Fuel Type A, A1	Maximum -40° C, -47° C freeze point; 15ppm sulfur
J80	Jet Fuel Type A, A1 - In Bond Transit	Maximum -40° C, -47° C freeze point; 15ppm sulfur
J90	Jet Fuel Type A, A1 - In Bond Transit	Maximum -40° C, -47° C freeze point; 3000ppm sulfur
J94	Jet Fuel Type A, A1	Maximum -40° C, -47° C freeze point; 3000ppm sulfur
J84	Jet Fuel Type A, A1 - SAF	Sustainable Aviation Fuel (SAF) requirements are incorporated into existing product codes
J80	Jet Fuel Type A, A1 – SAF – In Bond Transit	Sustainable Aviation Fuel (SAF) requirements are incorporated into existing product codes
J90	Jet Fuel Type A, A1 – SAF – In Bond Transit	Sustainable Aviation Fuel (SAF) requirements are incorporated into existing product codes
J94	Jet Fuel Type A, A1 - SAF	Sustainable Aviation Fuel (SAF) requirements are incorporated into existing product codes
D81	#1 ULSD Fuel (MVNLM)	#1D 15ppm Sulfur
D85	#2 ULSD Fuel (MVNLM)	#2D 15ppm Sulfur
D70	ECA Marine Diesel Fuel - DMA	500ppm sulfur - Minimum Flash Point 145° F
D95	#2 Heating Oil 15 ppmS (max) -Certified NTDF.	15ppm sulfur. Certified Non-Transportation Diesel Fuel

D96	#2 Heating Oil 15 ppmS (max)	15ppm sulfur.
D91	#1 Heating Oil 15 ppmS (max) -Certified NTDF.	15ppm sulfur. Certified Non-Transportation Diesel Fuel

NOTE: As of September 25, 2014, Sub grade octane gasolines intended for gasoline-ethanol blending may be certified via the “Base Neat” fuel or as a hand blend octane with 10 vol% D 4806 Ethanol for volatility and/or octane.

Washington State Department of Agriculture has adopted NIST Handbook 130 with modifications related to gasoline-ethanol blends. The modifications are identified in WAC 16-662-105 (3) (d) section 2.1.2 Gasoline-Ethanol Blends.

For Olympic Pipe Line shipment purposes, the following applies.

Shippers must state on Certificate of Analysis, the Certifying method as in following examples:

- Base volatility certification + Base octane certification.
- Base volatility certification + Handblend octane certification
- Handblend volatility certification + Base octane certification
- Handblend volatility certification + Handblend octane certification.

Sub-Octane Base “Neat” certification (4 volatility characteristics, DVPE, V/L=20, DI, D86)

1. The base sub-octane gasoline intended for blending with ethanol shall meet the requirements of ASTM D4814; except that the base gasoline shall meet the minimum temperature for a Vapor-Liquid Ratio of 20 for the applicable vapor lock protection class as follows:

(1) Class 1 shall be 140°F

(2) Class 2 shall be 133°F

(3) Class 3 shall be 124°F

(4) Class 4 shall be 116°F

(5) Class 5 shall be 105°F

2. The base sub-octane gasoline intended for blending with ethanol shall meet the minimum Octane Anti-knock Index (R+M/2) of 83.5 for an intended regular gasoline and 89.5 for an intended premium gasoline.

10 vol% EtOH Handblend certification (4 volatility characteristics, DVPE, V/L=20, DI, D86)

1. The 10 vol% Ethanol Handblend shall meet the requirements of ASTM D4814.
2. The maximum vapor pressure of the 10 vol% Ethanol Handblend shall not exceed ASTM

D4814 limits by more than 1.0 psi.

3. The 10% Ethanol Handblend shall meet the minimum Octane Anti-knock Index (R+M/2) of 87.0 for an intended regular gasoline and 92.0 for an intended premium gasoline.

SECTION 1.D

LOCATION AND TERMINAL CODES

Source Codes	Refinery Name
C	BP – Cherry Point
F	CP – Phillips Ferndale
K	Marathon - Anacortes
E	HollyFrontier
X	Bayview Products Terminal – Out with Anacortes
Z	Bayview Products Terminal – Out with Ferndale
Destination Codes	Terminal Name
B0	Bayview Products Terminal - OPL transmix
B6	Bayview – From Anacortes
B7	Bayview – From Ferndale
H0	Seattle - OPL Transmix
H1	Shell (Seattle)
H2	Kinder Morgan (Seattle)
H3	Seaport Midstream Partners (Seattle)
L1	Kinder Morgan (Linnton)
P0	Portland - OPL Transmix
P1	Seaport Midstream Partners (Portland)
P2	NuStar (Portland)

R0	Renton - OPL Transmix
R1	Phillips 66 (Renton)
S1	FSM Group (SeaTac)
T0	Tacoma - OPL Transmix
T1	Phillips 66 (Tacoma)
T2	Phillips 66 (Tacoma)
T3	NuStar (Tacoma)
T4	Seaport Sound Terminal (Tacoma)
V0	Vancouver - OPL Transmix
V1	Marathon (Vancouver)
W1	Kinder Morgan (Portland)
W2	Shell (Portland)
W3	Chevron (Portland)
W4	Phillips 66 (Portland)
W5	McCall (Portland)

SECTION 1.E

SHIPPER CODES

Transport 4 Code	Olympic Code	Name
ALA	AS	Alaska Airlines
BPO	BP	BP West Coast Products LLC
BNR	BN	Burlington Northern Santa Fe
PHI	CP	Phillips 66
CHV	CV	Chevron
HRM	HR	HollyFrontier
MAC	MA	Marathon
SEF	SE	SEI Fuel Services
SNL	SN	Sunoco
SVE	SV	Sun Valley Energy

SECTION 2

PRE-CERTIFICATION AND TESTING REQUIREMENTS

SECTION 2.A

GENERAL INFORMATION

Olympic Pipe Line Company presently receives finished grade petroleum products into its system from four refineries in Northwest Washington. The refineries are BP Cherry Point, CONOCOPHILLIPS Ferndale, TESORO Anacortes, and SHELL Puget Sound Plant, located at Blaine, Ferndale and Anacortes, respectively. Each delivers into the pipeline various grades of gasoline, jet fuel and diesel products for distribution to consumers in Washington and Oregon, principally. The companies supply finished grade petroleum products to a wide variety of shippers as noted on Olympic Pipe Line Company's Batch Coding System. These shippers may or may not have their own distribution terminal connected to the pipeline. Normal operations of the petroleum industry in the Pacific Northwest, involves exchanging products among refiners and shippers.

As the demands on the system have grown, Olympic has moved to a fungible system. The monitoring program is designed to assure quality standards are met in the product streams. The program relies on refinery certification of product, assuring that all ASTM specifications and the quality specification of Olympic Pipe Line Company are met. Additional testing by Olympic and the other quality assurance procedures outlined here are designed to further protect the integrity of these streams.

OLYMPIC

A fungible system with limited segregated product carried.

Olympic anticipates continuing to be able to handle limited volumes of non-fungible product. Olympic will determine what products it will transport as segregated. Olympic has published a list of products. Products meeting Olympic Pipe Line Company's Product Specifications may be shipped as non-fungible due to limited source availability and/or limited number of destinations which would require batching.

The quality assurance monitoring program is intended to provide due diligence that the product streams entering the system will meet ASTM and Olympic standards and regulatory requirements. It is not a guarantee of the quality of the product that is actually shipped on the pipeline.

As a normal operating practice and under normal operating conditions block valves are not to be cycled for routine maintenance or pre-construction projects, while jet fuel is passing through the pipeline. The body of the block valves, etc., may contain fuel other than jet fuel and therefore contaminate the jet fuel and create off specification jet fuel.

The cycling of SeaTac lateral valves are the only exception, as these are only for jet fuel service.

SECTION 2.B

REFINED PRODUCTS ADDITIVES & COMPONENTS

The list of Approved Additives/Components is not exhaustive and covers additives that have gone through Olympics' approval process. Olympic Pipe Line Company LLC (Olympic) will consider new additives when requested by a connecting refinery.

Refiners and the respective additive company are advised to review the following for any surface active additives: Energy Institute - EI 1535: MINIMUM CRITERIA TO DETERMINE ACCEPTABILITY OF ADDITIVES FOR USE IN MULTI-PRODUCT PIPELINES CO-TRANSPORTING JET FUEL. These criteria must be met before any action can be taken on additive approval requests.

Please submit requests via company email to:

OLYMPICPIPELINESCHEDULING@bp.com

Subject Line: Attention Quality Advisor

Or mail to:

Olympic Pipe Line Company LLC
Product Movements: Quality Assurance
2319 Lind Ave SW
Renton WA 98057

The request should contain the following:

- The reason for the request.
- Supporting manufacturer documentation for the change or addition.
- Olympic may request additional information.

Olympic reserves the right to disallow the use of any approved or requested Additive/Component at any time for any reason.

APPROVED ADDITIVES/COMPONENTS

Antioxidants

All ASTM D1655 (latest revision) Table 2 Antioxidants for Aviation Turbine Fuels

Nalco EC5208A: Antioxidant (Jet: used on occasion)

Nalco EC5628A: =2/3rd 5405 and 1/3rd EC5208A (Gasoline: Ferrous Corrosion Inhibitor and antioxidant)

Corrosion Inhibitors

Athlon Haliburton RPS-899: Copper and Silver Corrosion inhibitor
(Gasoline/Diesel used on occasion. Additive contributes to overall sulfur content and products shall be tested for sulfur content after its use.)

Baker Petrolite Tolad 249

Baker Petrolite Tolad 3232D

Baker Petrolite Tolad 3938

Baker Petrolite Tolad 9715/9719

GE Betz Spec-Aid 8Q110

GE Betz Spec-Aid 8Q123ULS

Octel DCI 6A

Octel DCI 30-n

Nalco 5403: Gasoline and Diesel as Ferrous Corrosion Inhibitor

Nalco 5405: Diesel as Ferrous Corrosion Inhibitor

Nalco EC5407A: Copper and Silver Corrosion Inhibitor (Gasoline: used on occasion)

Nalco EC5628A: =2/3rd 5405 and 1/3rd EC5208A (Gasoline: Ferrous Corrosion Inhibitor and antioxidant)

Cetane Improvers - 2-Ethylhexyl Nitrate based only: Additive concentration shall not exceed 1200 ppm.

Nalco EC5308A

Tolad 1347-T1347

Eurengo VeryOne

Metal Deactivator Additive (Jet Fuel Only and as per ASTM 1655 latest revision for dose and use frequency)

Antistatic Additives – For Emergency Use Only (See Prohibited Additives below)

Stadis 450

PROHIBITED ADDITIVES/COMPONENTS

SDA- No Static Dissipater /Electrical Conductivity additive is permitted in the Olympic system. This requirement is in response to potential influences to Jet Fuel product quality. This requirement is valid as of 4/1/2010.

11/30/2018 – Antistatic additive may be used when an emergency threatens the supply to Olympic from any given refinery following the two criteria:

1. Shipper must request waiver to Olympic Pipe Line Quality Assurance Advisor AND follow a required testing protocol to be determined at time of request
2. Stadis 450 may be used up to 2ppm.

Pour Point Depressant Additives- After 1/1/2013, No longer permitted on regular basis in diesel fuels.

Corrosion Inhibitors

Nalco 5403: Is not approved by Olympic Pipe Line for Jet fuel, inadvertent injection does not require downgrade of Jet fuel as long as the additive did not exceed concentrations noted in ASTM D 1655.

MTBE - Olympic does not accept gasoline containing oxygenated blends; Ethanol or any other alcohol based additive, MTBE - as per current state law (Washington RCW 19.112.100 - Methyl tertiary - butyl ether may not be intentionally added to any gasoline, motor fuel, or clean fuel produced for sale or used in the state of Washington after December 31st, 2003, and in no event may methyl tertiary-butyl ether be knowingly mixed in gasoline above fifteen-hundredths of one percent by volume).

MMT - Methylcyclopentadienyl manganese tricarbonyl (MMT) is not allowed in gasoline. No addition of metals is allowed.

Lubricity Additives – Olympic will not permit the use of lubricity additive in product transported in the pipeline. Olympic has concerns regarding the effect lubricity additive may have in the pipeline and the potential for trail-back into jet fuel.

Olympic will allow the shipment of diesel that does not meet the lubricity specification. Olympic has received written confirmation from the Washington State Department of Agriculture that states they will conduct its surveillance and take enforcement action at the final point of sale where the end user receives the fuel.

Section 2.C

Oversight Program

Scope

The Quality Assurance department provides an oversight program to assist the pipeline in assuring both suppliers and downstream customers that the products carried are complying with the product specifications set forth in the pipeline product specification manual.

The Oversight Program meets or exceeds pertinent EPA regulations, and consists of multiple facets. Products are monitored in the following manner:

1. **Refinery Certificates of Quality (RCQ) and Certificates of Analysis (COA)** – See Section 2.D and Section 4 for detailed information on RCQs and COA's.
2. **Random Sampling and Testing** – See Section 2.E for detailed information on Random Sampling and Testing.
3. **Round Robin Sample Testing**- See Section 2.E for detailed information on Round Robin Sample Testing.
4. **Onsite Inspections and Reviews** - Periodically, Quality Assurance may visit each independent laboratory and review: personnel qualifications for testing, test procedures and instrumentation used for samples submitted by the pipeline.

SECTION 2.D

RECEIPT QUALITY ASSURANCE

The program includes the following:

1. Refineries must test the batch and provide a Refinery Certificate of Quality / Certificate of Analysis meeting the carrier's full product specifications. Olympic may impose more stringent specifications than ASTM or regulatory specifications to allow for variations in reproducibility

2. Prior to pumping, the following criteria shall be met:

- ❑ The supplier must identify the tank(s) for the batch(es) being supplied including Olympic Pipe Line Company's batch number(s).
- ❑ The minimum tank volume per operational batch identification (OBID) is 10,000 barrels.
 - Volumes less than 10,000 bbls per tank will be evaluated on a case by case basis, and must be approved by Product Movements.
- ❑ Must provide specific test results as shown on the Olympic Pipe Line Company Certificate of Analysis Requirements (Section 4) for each tank comprising the batch.
- ❑ These tests must include, but not limited to:

GASOLINE	ULSD
• API gravity @ 60 °F	API gravity @ 60 °F
• Sulfur Content, ppm (µg/g)	Flash point D93A
• Benzene vol.%	Cloud Point
• RVP	Sulfur Content, ppm (µg/g)
• Octane (R+M)/2	Distillation
• Distillation	Cetane Number D613 (or Index D4737)
• Copper Strip Corrosion	Cetane Index D976
• Silver Strip Corrosion	Distillation
• Driveability Index D4814	Viscosity, cST

- Oxygenate Content (if applicable)

- **JET FUEL**

- **DMA Marine Fuel Distillate**

- | | |
|--|---------------------|
| • API gravity @ 60 °F | API gravity @ 60 °F |
| • MSEP D3948 | Flash Point |
| • Flash Point | Sulfur Content |
| • Freeze Point | Cetane Index D4737 |
| • JFTOT D3241 | Distillation |
| • Sulfur Content, mass% or ppm (µg/g) | Pour Point |
| • Particulate Contamination mg/L and
membrane color rating. | Viscosity, cST |
| • Viscosity, cST | |

- ❑ In addition, Workmanship and Appearance by D4176 are required to be noted for all products. (**Workmanship Clause:** On delivery into the pipeline, the product is free of suspended water and particulate matter, at a temperature in the range of 68°-72° F (Ambient Temperature) and a Haze rating of <=2, exception being Jet fuel and ULSD#1 where the Haze rating must be a 1)
- ❑ All fuels must show the product acceptance temperature.
- ❑ To ensure regulatory compliance and acceptance for receipt into the pipeline, Olympic Pipe Line must receive the required Certificate of Analysis two (2) hours prior to pumping. This information must be EMAILED to G PL RCC COAolympic@bp.com with an authorized signature of a designated supervisor. In the event an email fails to be sent or received, RCC will accept a FAX to the Renton office at 425-271-5320.

3. The results of the tests of the product, for each measured parameter, must be accurately reported on the refiner's Certificate of Analysis. Olympic Pipe Line Company will rely on the refinery laboratory to ensure the product is fully on test. Olympic Pipe Line Company will check laboratory results by comparing its random test results against the reported values. Olympic Pipe Line Company's Quality Assurance Advisor may audit refinery laboratory procedures. In general, refinery laboratories and independent commercial laboratories are presumed to be qualified.

4. Olympic Pipe Line Company will monitor the incoming receipt with its automated equipment. If during a receipt the API gravity varies or shifts unexplainably from the reported gravity value by more than 1 degree API for gasoline and diesels, and 0.7 degrees API for jet fuel or if the appearance is different than expected, the receipt will be shut down and investigated.

NOTE: Maximum API Gravities are listed on the Product Specification Sheets to address operational parameters of Olympics' automated equipment.

5. Olympic Pipe Line Company will spot test shipments for compliance with its published specifications and will retain samples of the spot checked products. A spot test will be interpreted as confirmation of the refinery Certificate of Analysis if the values fall within ASTM reproducibility tolerance and meet or exceed the regulatory requirements of the fuel.

6. Olympic Pipe Line Company's employees monitor the batches as they move through the pipeline with either continuous instrumentation or thru manual checks to observe, record and communicate API gravity, temperature, pressure and physical appearance as the batch progresses. Selected batches are sampled for key properties. In this way, Olympic Pipe Line Company can confirm that the refinery's product meets the specifications, and that our operating procedures are not adversely affecting product quality.

7. Olympic Pipe Line Company requires that all gasoline received into the pipeline for delivery to Washington and/or Oregon terminals will not exceed the maximum RVP schedule levels in compliance with State and Federal regulations.

To monitor compliance with gasoline volatility limitations, incoming batches may be tested for RVP by Olympic Pipeline or accredited outside laboratory. Product which does not meet State and Federal RVP requirements will not be accepted for shipment, and the appropriate Shipper(s) will be immediately notified and the tender terminated.

Olympic posts pipeline RVP schedules in Sections 3.A and 3.B as a guideline to assist Shippers in meeting RVP requirements applicable in the geographic location of the Terminal. Exceptions to the posted pipeline RVP schedules are allowed if the product meets State and Federal regulations in effect in the geographic location where the product ultimately will be sold.

8. To comply with federal regulations limiting sulfur and Cetane Index (or aromatic content) of diesel fuels for either marine Environmental Containment Area (ECA) or highway vehicles, Olympic requires the product to meet EPA specifications. The Olympic pipeline maximum allowable sulfur content is 0.050 wt. % for DMA and 11 ppm for Ultra Low Sulfur Diesel. The minimum Cetane Index is 40.0, no tolerance is allowed below 40.0 Cetane Index by D 976 or D

4737. If any test of a tendered product is found by Olympic to exceed the regulatory limit, the refiner/shipper will be notified and made responsible for disposing of the product.

SECTION 2.E

ROUND ROBIN AND RANDOM SAMPLE TESTING

Round Robin

The quality assurance program for product shipped on the Olympic Pipe Line Company system requires that each shipper that certifies product, participate in round robin sample testing when requested. These samples will be taken from actual shipments on the pipeline. The number of tests for a product may vary.

The samples will be submitted blind to all participants. This means that samples will have a unique number assigned for identification by only Olympic Pipe Line Company. The sample provided will be of sufficient quantity to perform all testing required on the test report. Samples will require processing as stated on the report sheet and returned within a specified time period.

A sample for round robin testing is collected at a pipeline location into one container if possible for splitting with participants. Where one container is not possible, as in gasoline for vapor pressure testing, sample containers are chilled prior to use, the sample line flows through an ice water bath sufficient enough so as to limit vapor loss and each container is capped immediately after filling. All containers are new. The samples may require chilling prior to use and in all cases stored at room temperature or below prior to testing.

Round robin testing of the product will require the same laboratory personnel used for testing the certified product(s) shipped on the pipeline. Each laboratory that certifies a product will maintain a list of personnel that are qualified to certify a given product.

The test data from the participants samples are tabulated and simple statistical information is calculated, this includes: average, standard deviation, range and count. All samples are identified with a unique sample number. The data for all test procedures with the results from all participants is distributed blindly back to all participating.

Quality Oversight Sampling and Testing

The Field Specialists at various locations from the pipeline origins to the delivery facilities sample and test according to the pipeline schedules for the variety of products carried. All products are sampled periodically and per an internal Quality Assurance

Oversight Plan. Some products are sampled more frequently than others due to regulatory compliance, product quality issues, pipeline needs and customer inquiries.

- ❑ An example of a schedule for a field location might be: gasoline is sampled from a published pipeline schedule once a month for Vapor Pressure. (other tests may also be performed)
- ❑ Jet fuel is sampled during acceptance to the pipeline at the origin for all batches. A number of tests are performed on the fuel, including Appearance, Shell Water Detection kits, HydroLight or Aqua-Glo, API, Flash Point, Particulates and others.
- ❑ Diesel is sampled for API, Sulfur, Flash Point from a published pipeline schedule.
- ❑ Pipeline schedules are used to determine when and what products are available for sampling and the Field Specialist use an internal Quality Assurance Oversight Plan for determining product sampling and testing.

SECTION 2.F

QUALITY ASSURANCE PROGRAM

Specifications

All finished products available to be received into the Olympic Pipe Line system are required to meet all ASTM, State and Federal regulatory specifications as defined in the latest version of the applicable governing rules for petroleum finished products, these include but not limited to ASTM D975, ASTM D1655, ASTM D4814 and ASTM D 396. In conjunction with ASTM and the various governmental controls, Olympic Pipe Line Company requires all fuels to meet appearance, workmanship as well as other industry requirements. Olympic may impose more stringent specifications to allow for variations in reproducibility.

Refinery Certificates of Quality / Certificate of Analysis

All products are required to have a manufacture's certificate of analysis signed and delivered to Olympic Pipe Line Company prior to shipment. Olympic Pipe Line Company requires a Refinery Certificate of Quality, for each product to be shipped on the pipeline system, 2 hours prior to shipment, by fax or email. These requirements are part of this manual. (See Section 4)

Quality Assurance - Products Monitoring Program

To assure compliance of the products shipped on the pipeline, Olympic Pipe Line Company requires the following:

As stated in the Quality Assurance statement, a round robin program of products shipped on the pipeline may be used to assist verification of performance to the product specifications as set forth in this manual.

Regulatory requirements of fuels shipped on the pipeline are monitored and data reported to the Quality Assurance Department. The Olympic Pipe Line Company's equipment and instrumentation will be adjusted to meet the needs of regulatory compliance as needed. The quality assurance testing by Olympic Pipe Line Company personnel and/or the contract laboratories are currently, but not limited to: Appearance, API Gravity, Sulfur, and Vapor Pressure of Gasoline; Appearance, API Gravity, Sulfur, and Flash Point of all distillates; Shell Water Detection, Particulate Matter D-2276, MSEP D 3948/ D7224, Flash Point and Freeze Point of Jet fuel.

Contract laboratories used by Olympic Pipe Line Company will be audited for testing competence, record keeping, reporting and quality assurance and as deemed necessary by the Quality Assurance Department of Olympic Pipe Line Company and may participate in the round robin testing.

On occasion, random on-site witnessing by Olympic employees of manufacturing certification of petroleum products that are shipped on the pipeline may be conducted. Products are defined as gasoline, jet fuel, and diesel oil. Each product may be witnessed randomly, or as the Quality Assurance Advisor of Olympic Pipe Line Company requires.

Olympic Pipe Line Company will periodically request the assistance of a refiner and its laboratory in testing of a product(s) or a similar product for specification testing and/or contamination issues.

Quality Assurance

In addition to the above, the following is required:

Refinery Certificate of Quality / Certificate of Analysis

Refinery Certificates of Quality / Certificates of Analysis are to be checked by the Renton Control Center to verify that critical test results for product codes are met.

Sampling

Auto samples are to be taken at all facilities having multiple auto sampler pots where dedicated sample pots for ULSD, Gasoline and Jet Fuel are available.

A visual check of the sample for haze and particulate shall be observed with all samples and noted if any haze or particulate is present.

All samples will be retained for 30 days.

Refinery Origination Sampling

Each refinery distillate tank will be auto-sampled at Olympic Stations located in Blaine, Ferndale and Anacortes.

Delivery Facility Location Sampling

Samples of distillates will be taken at all Delivery facilities equipped with auto samplers.

Quality Assurance – Product in the pipeline

If product is contaminated due to negligence of Olympic while the product is being transported by Olympic, Olympic will follow these guidelines:

- ❑ Olympic will pay for terminal storage charges to store the product when it comes out of the pipeline.
- ❑ Olympic will arrange for the delivery of the product to an appropriate terminal.
- ❑ Olympic will charge the shipper the tariff charge from the original location even though the product may be replaced with product from a different refinery.

- ❑ Olympic will work with the shipper to be able to receive replacement product at the delivery location.
- ❑ Olympic will not charge the shipper of record for the transportation or over/short charges connected to the contaminated product.
- ❑ Olympic will not be responsible for the difference in wholesale or retail price of the contaminated product between the time when the product was originally scheduled for delivery and the time that the product is replaced.
- ❑ Olympic will not pay the owner of the product any legal costs associated with the contamination of the product.
- ❑ Olympic will not pay for “lost profits” or any other incidental costs associated with the contamination.

SECTION 2.G

PETROLEUM PRODUCT RETAIN POLICY

Scope

Products offered to OPL for lifting will have a minimum and maximum "Sample Retention" time. All products and all grades within these products, when sampled, will be required to be held in storage for a period of time as specified. Retain samples will be obtained when sampling of a product is performed.

Product Retention Policy

During the sampling process there will be duplicate samples drawn. The samples will be clearly labeled with: Date, Time, Tender #, product description, sample type (UML, All Level, Composite Pot #, Line grab etc.) API Gravity, barrel count (if applicable), initials of operator, and have the appropriate color-coded sample tag. Other pertinent information may be attached or kept with the sample.

Product Samples

One sample will be for testing as required or needed.

The other unopened duplicate sample(s) is to be retained in a cool, dark and dry storage cabinet appropriate for the flammability and volume stored.

Gasoline and Diesel are sampled/stored in clean and amber glass Boston round quart bottles with phenolic poly-cone caps, unless otherwise requested.

Jet fuel is sampled/stored in clear and amber quart bottles or, when larger volumes are needed, in 1, 2-1/2, or 5 gallon lined cans.

All Gasoline, Jet fuel and Diesel samples will be retained for 30 days.

Discarding of Retained Samples

The petroleum product samples will be emptied as follows:

- ❑ Gasoline, Diesel and Jet Fuel containers will be emptied into the prescribed disposal container and allowed to drain and air-dry.
- ❑ All gasoline and jet fuel samples over 30 days will be discarded.
- ❑ All diesel samples over 30 days will be discarded.

SECTION 2.H

BALLOTING PROCESS POLICY

The product specifications used by Olympic Pipe Line are adopted from ASTM specifications, federal and state regulatory requirements and the operational needs of the pipeline. Changes to the product specifications may be required due to changes or requirements from these agencies.

Shippers on Olympic Pipe Line can also request modifications to the product specifications. The following details the policy on how requests are to be made and how they will be handled by Olympic Pipe Line.

1. The Shipper must request the modification in writing.

The request may be addressed to:

Olympic Pipe Line Co.

Product Movements: Quality Assurance

2319 Lind Ave SW

Renton WA 98057

Or emailed to:

OLYMPICPIPELINESCHEDULING@bp.com

Product Movements: Quality Assurance

The request should contain the following:

- The reason for the request.
- Supporting documentation for the change or addition.

2. The request will first be reviewed by Olympic Pipe Line for operational considerations. If Olympic determines that there are issues or problems with the request, the shipper will be notified. If the issues of concern can be resolved, the request will proceed to the next step. Otherwise, the request will be denied. The shipper will be notified by email in either event.
3. Requests that pass Olympic Pipe Line review will be submitted via email, to the shippers for review, and to the refiners for voting.

- Olympic Pipe Line will create a formal request for modification. This document (the “ballot”) will include
 - The current specification and the requested change to the specification
 - The shippers information and justification for the request
 - Olympics’ analysis of the impact of the change if adopted.
 - Due dates for the ballot to be returned by the refiners. There will be a minimum of 30 calendar days after the ballots have been emailed for the comment period.
 - Any Shipper can request an extension to the comment period and the due date. Any change in the due date is at the discretion of Olympic Pipe Line.
 - Any changes to the original ballot document will be communicated to all active shippers via email.
 - Proposed implementation dates and conditions if the change is accepted.
- The ballot will be sent via email to every active shipper. The email will have “Read Receipt Requested” attached to it. Please acknowledge that you have read the email. If you do not use Outlook as your mail client, please send a reply that you have received and read the ballot email.
- Each refiner has one vote.
- Shippers, who are not also refiners, are encouraged to make their needs and wishes known to the refiner with which they do business.

4. Voting Procedures

- Only refiners actually vote on the ballot.
- Ballots will be tabulated by Olympic Pipe Line.
- Ballots not returned by the refiner in time will be considered a negative vote.
- A ballot requires a majority (3 out of 4 refiners) acceptance in order to be accepted.
- The results of the ballot will be sent to all active shippers via email, a maximum of five business days after the ballot due date.

- If the requested change is accepted, the specification will become effective 60 days after notification, or at a time specified by Olympic Pipe Line.
- At that time the specification will become part of the Olympic Pipe Line Specification manual.

5. Olympic reserves the right to make changes to product specifications that improve the operability of the pipeline, without balloting.

SECTION 2.I

OFF-SPECIFICATION PRODUCT POLICY

Scope

This section provides general guidelines that are designed to assist in the process of handling “Off-Specification Product.” (Off-Spec)

Off-Specification Product

Off-Spec product is a product that does not meet Olympic Pipe Line’s entry specifications, regardless of whether it meets Federal and/or State regulations. On an intermittent basis, Olympic must provide “special handling” of products that have entered our pipeline system, and are then recognized to be Off-Spec.

Off-Spec product may occur due to several reasons, which include, but are not limited to the following:

- ❑ Manufacturing – The final product does not meet entry specifications defined by Olympic Pipe Line. (See Sections 4.A – 4.G for product specifications)
- ❑ Mechanical Error – Incompatible products are commingled together via a mechanical malfunction. (Ex.: Leaking valve)
- ❑ Operational Error – Incompatible products are commingled together due to an error made by refinery, terminal, or Olympic personnel.

Off-spec product can be indentified in several ways:

- ❑ Lab results provided by the refinery, prior to entry into the pipeline. (COA)
- ❑ By field personnel, upon entry into the pipeline, as to whether it meets the Workmanship Clause of the pipeline specification manual. (See Section 2.D)
- ❑ By Control Center, using online instrumentation.

- ❑ Lab results from a grab or composite sample of the product, after it has entered the pipeline system.

Final determination of a product quality issue, and actions to be taken, will be made by the Olympic QA advisor or management.

Response to Product Quality Issue

After a product has been found to be Off-Spec, there are several actions that may be taken, which include, but are not limited to the following:

- ❑ Product denied entry into the pipeline system.
- ❑ Product allowed into the pipeline system with a waiver from QA advisor
- ❑ The pipeline may shutdown delivery of fuel from an origin location, if testing indicates product does not meet specification, Workmanship clause, or exceeds test tolerances used by the pipeline.
- ❑ Product code changed to reflect the product specification that it meets, if product code exists.
- ❑ If tender was designated as a fungible tender, all or part, may be changed to a segregated tender, with associated transportation fees.
- ❑ Late Schedule Change fees may be incurred.

In addition to the possible actions taken by Olympic Pipe Line, the following action is required by the shipper of record, or refiner, before allowed to enter the pipeline; or, if the product has entered the pipeline:

- ❑ Provide approval for the Off-Spec product to be delivered to their terminal.
- ❑ If unable to deliver to their own terminal, gain approval from any terminal to accept the Off-Spec product.

An investigation shall be conducted to determine the cause of the product contamination. If it is determined that the product contamination was caused by a refinery, the carrier reserves the right to charge the refinery all costs resulting from the contamination.

Communication of a Product Quality Issue

In all cases, communications shall be made to allow notification in as timely a manner as possible, for handling of a product quality issue. The quality concern should be communicated to the appropriate stakeholders, such as:

- ❑ First Responder – The person who first notices that there is, or could be, a QA concern. This could be refinery, Olympic, or terminal personnel.
- ❑ QA Advisor – Will be notified of any product quality concern, as soon as there has been one identified. QA advisor will determine any actions to be taken and communicate them accordingly to the appropriate personnel and customers.
- ❑ Control Center – Will be notified of any special considerations and operational needs concerning a tender with product quality issues. CC may be delegated to pass along information concerning the quality issue to appropriate personnel and customers.
- ❑ Field Personnel – Will be notified of any special considerations and operational needs concerning a tender with product quality issues.
- ❑ Pipeline Management – Will be notified of any product quality concern, and actions being taken.
- ❑ Refiners/Shippers/Terminals – Will be notified of the product quality concern. In addition, the following information will be communicated:
 - Notification to the downstream delivery location shall be made as soon as the destination is determined.
 - The delivery location shall be made aware of the product type, approximate volume, and the expected time of the delivery.

SECTION 2.J

Policy for Fungible – Segregated Products

Scope

Olympics business model/operating philosophy for our pipeline is to operate as a fungible system. This model promotes operating efficiency, flexibility and works to lower risk while delivering a safe, ratable, and reliable transportation service for Olympic and its customers. Olympic also supports limited segregation of batches in our system to which a higher tariff¹ is applied.

Over the past few years, changes driven by regulatory requirements such as ultra low sulfur diesel and ethanol blending in conjunction with economic related business drivers has rendered the existing practice no longer fit for purpose. To address this concern, Olympic will implement the following changes to improve and clarify the fungible / segregation policy rules and definitions in order to adapt to changes that will undoubtedly occur in the future.

The greatest impact of this change pertains to *how* Olympic will identify and declare which products will ship fungible and which products will ship segregated.

Olympic will adopt volumetric (customer shipping) trends as a dynamic trigger used to declare the fungible status for each product in an identified “core product slate”. In addition, products currently residing outside of this identified “core product slate” along with those moved outside in the future will ship as segregated.

Olympic reserves the right to declare any product as fungible or segregated.

We expect this policy will work to;

- ❑ incentivize shippers to move “fewer” product types
- ❑ Enable Olympics fungible “core product slate” to follow customer shipping trends
- ❑ Provide a simple trigger to designate products as segregated.
- ❑ Improve overall delivered product quality

Pre-requisites;

- ❑ Product must meet Olympic Pipe Line specifications
- ❑ Product must be tested² and approved as compatible with other producer’s product of same specification on Olympic system.

¹ The higher tariff is intended to offset additional operating costs; operating costs are subject to change.

² Testing may or may not be required; Olympic Quality Assurance process will dictate this requirement.

- ❑ Olympic is able to combine the product with a product of same specification from other producers at the source meter location (Anacortes or Ferndale) or at Allen station as part of a multisource batch (currently D85-ULSD and P1x Sub-Octane Premium).
- ❑ Dynamic trigger (Volumetric/customer shipping trends) for a given product has remained constant for 3 months and is expected to remain constant for the foreseeable future.
- ❑ Product lifting and delivery sequence remains compatible with refinery and/or terminal lay-down and push-out operations.

We will identify our current fungible “core product slate” as;

- ❑ R1X – Fungible Sub-Octane Regular Gasoline
- ❑ P1X – Fungible Sub-Octane Premium Gasoline
- ❑ D85 – Ultra Low Sulfur Diesel
- ❑ J84 – ULS Turbine Fuel
- ❑ J94 – Turbine Fuel

SECTION 2.K

DRAG REDUCING AGENT

- ❑ Drag Reducing Agent (DRA) is used by pipeline operations to enhance the throughput of product in the pipeline system. The DRA is injected at different locations from Ferndale to Castle Rock, Washington.
- ❑ The specific Drag Reducing Agent shall be approved by Olympic Pipeline Quality Assurance prior to use on the pipeline.
- ❑ The Control Center operator shall use the most current Olympic Pipe Line schedule provided by the Olympic Product Movements Department to coordinate the injection of DRA into a fuel.
- ❑ The Control Center operator shall use all available technology for starting, stopping and monitoring fuels injected with DRA.
- ❑ DRA is injected into gasoline and diesel products. DRA cannot be injected into any Jet fuel.

SECTION 2.L

Scraper Program

Pipeline scraping tools, inspection tools, and spheres are placed in the pipeline for cleaning, internal inspections or to address product quality requirements. The Product Movements Scheduler, project engineer, and the Quality Assurance Advisor will schedule the use of an approved tool that is designed to segregate unlike commodities, remove debris from the walls of the pipeline, or inspect the pipeline for anomalies. Spheres, scrapers, or a combination of the two, may also be placed in the pipeline to displace product with nitrogen, when the pipe will be opened to the atmosphere during a project.

When these tools are run a certain amount of particulate and other contaminants ("cloud") may accumulate in the product. The cloud is pushed down the pipeline and delivered to the customer's terminal unless otherwise directed by the Quality Assurance Advisor. The Renton Control Center will monitor and track the cloud at various pipelines locations.

Available space in the utility tanks at Renton and Portland may be utilized for scraper cloud and debris containment; however space must be reserved for normal pipeline operations and overpressure relief.

Significance of Scraper Runs

Scrapers loosen and dislodge debris clinging to the walls of the pipeline so that products can remain free of particulate and moisture. Scrapers also may remove additives that may adversely affect future product shipments. Periodic scraper runs are a component of product quality control. The following is the procedure for regular scheduled scraper runs.

1. General Guidelines

- a. The Field Specialists will coordinate with the Controller to establish appropriate logistics for loading or retrieving the tool(s).
- b. Field Specialist will follow the pump schedule to sample incoming cloud as per Quality Assurance Advisors recommendation.
- c. Bayview Products Terminal activity will be bypassed until the scraper arrives at Allen Station.
- d. Laterals are not required to be bypassed during a scraper passage.

- e. Tacoma, Olympia, Castle Rock, and Woodinville pump stations are equipped with a Sphere Bypass System that allows scrapers and spheres to pass by a pump station without shutting the station down.
- f. During a Smart Tool run, RCC will bypass the Tacoma, Olympia, Castle Rock and Woodinville pump stations 2000 barrels prior to the arrival of the tool (or as directed by project guidelines). RCC will perform the following:
 - Ensure the loop bypass valve is open
 - Shutdown the pumps and close the control valve
 - After it has been verified that the tool has passed the pump stations can be returned to normal service.
- g. Scraper runs are generally run at least 5000 barrels deep in ULSD (Ultra Low Sulphur Diesel).

2. Scheduling Line Segments

- a. Scraper runs are to occur on all line segments once annually.
- b. Mainline and Segment 1 scraper runs will be organized by each area dictating to the product scheduler when to put it on the pump schedule.
- c. The product scheduler will indicate on the pump schedule using the scraper symbol {S} which batch the scraper run will occur in.

3. Scheduling Laterals

- a. Field Specialists will launch a scraper as directed by a PM work order in the following laterals:
 - Cherry Point to Ferndale, Renton JCT to SeaTac DF, Renton JCT to Seattle DF, Tacoma JCT to Tacoma DF, Vancouver JCT to Vancouver DF
- b. Field Specialists will launch a scraper annually in the following laterals:
 - E Booster to Anacortes Station, K Booster to Anacortes Station, Portland DF to W2 Delivery Facility
 - Products Movement does not show the Scraper Symbol {S} in laterals.

Section 2.M

Handling and Allocation of Distillate Transmix

Distillate Transmix is defined as the interface created by the commingling of incompatible Diesel and Jet during transport through the pipeline

Issue: Declining ability for delivery terminals to manage high sulfur interface.

The introduction of ULSD and subsequent (regulatory required) phase out of high sulfur diesel products in conjunction with an increasing number of customers making the decision to stop handling high sulfur products has created operational issues for Olympic and our customers.

To mitigate this issue, whenever possible, Olympic reserves the right to modify the Batch Plan to place products adjacent High Sulfur products that can absorb this interface at any given terminal.

Olympic expects to have the need to manage incompatible interface occurring between HS Jet and ULSD products. The issue becomes more acute when we consider that **no** interface from high sulfur product can be put into a ULSD tank, **nor** can the interface be taken into a Jet tank (thus the incompatible label).

The need for this change continues to escalate since not all terminals are not equipped (nor desire) to handle this incompatible interface, for a number of reasons.

- ❑ April 2010 Olympic Annual Shippers Meeting, the topic of Distillate Transmix was brought up by the shipper community, asking Olympic to resolve
- ❑ Main issues:
 - This interface is caused due to incompatibility of products involved. ULSD cannot be put into Jet; Jet cannot be put into ULSD. Hence, this interface must be put into Transmix tankage.
 - Some terminals not equipped to handle Distillate Transmix (no Transmix tankage)

- Some refineries not producing HS products, but having to deal with interface at terminals
- Olympic does not have enough utility tankage to handle additional interfaces
- Was considered by Olympic to be a customer problem, not a pipeline problem
 - Olympic Tariff Rules state that all terminals must be able to provide an interface tank for incompatible products. Section 11.B of the Olympic Tariff Rules
- As a good steward to the shipper community, Olympic volunteered to facilitate a teleconference with representatives of the community to form a long-term solution of the Distillate Transmix issue
- November 2010 was the first phone call with representatives of the shipper community

Representative Resolution

- Over the course of several months, many options were discussed on how to resolve the issue
- On March 8, 2011 the representatives agreed to have one terminal at each location, Seattle & Portland/Willbridge, handle the Distillate Transmix
- Representatives agreed that Kinder Morgan would be the terminal to handle the interface at both locations...Seattle & Portland/Willbridge. (NOTE: KM did NOT solicit the community for this business, it was requested of them)
- Incompatible Distillate Transmix will be allocated Per KM accounting procedures.
 - It will be the responsibility of the shippers to make arrangements with KM to facilitate the storage/removal/disposal of their Transmix allocation

Operations Resolution

- Olympic will maintain batch changes on midpoint
- HS interface in/out of Transmix tankage to be handled per KM operating procedures

- ❑ KM must receive a delivery of ULSD at the beginning and end of fuel cycle (next to Jet) for each segment
 - This allows easier operations for Olympic and KM to provide protection of the disparate products
- ❑ Seattle: to support the required delivery of ULSD to H2 (KM), Olympic will allow our minimum batch size to Seattle to be reduced to 4,000 bbls (D85-J94 only)
- ❑ Portland: must have a delivery of at least 8,000 bbls of ULSD to W1 (KM Willbridge)
 - Olympic can “split” the delivery to the minimum batch size to enable W1 to be at the beginning and end of the ULSD cycle

Failure to comply - If there is no ULSD delivery to KM (H2 or W1), next/previous customer will be required to take a portion of the interface

This resolution is effective as of August 1, 2011

SECTION 3

RVP Schedule

SECTION 3.A

OPLCo Vapor Pressure Schedule Full Octane and Sub-Octane “Base” Conventional Gasolines Segment 1

(Seattle and Renton terminals)

	Jan	Feb	Mar	Apr	Note 1 May	Jun	Jul	Aug	Note 2, 3 Sept	Oct	Nov	Dec
Cycle 1	15.0	15.0	15.0	13.5	9.0	9.0	9.0	9.0	9.0	13.5	15.0	15.0
Cycle 2	15.0	15.0	15.0	9.0	9.0	9.0	9.0	9.0	9.0	13.5	15.0	15.0
Cycle 3	15.0	15.0	15.0	9.0	9.0	9.0	9.0	9.0	9.0	13.5	15.0	15.0
Cycle 4	15.0	15.0	13.5	9.0	9.0	9.0	9.0	9.0	11.5	13.5	15.0	15.0
Cycle 5	15.0	15.00	13.5	9.0	9.0	9.0	9.0	9.0	11.5	13.5	15.0	15.0

Bold Vapor Pressure designations reflect EPA summer season

Note ¹ EPA requires terminal tankage to be 9.0 psi on May 1

Note ² Product may be delivered by the pipeline on 9/16 at 11.5 psi

Note ³ Product intended for Washington State retail locations west of 122° Longitude may be delivered by the pipeline on 9/16 at 13.5 psi.

Product Codes – P06, R06, P16, R16

15.0 psi or less

Product Codes – P05, R05, P15, R15

13.5 psi or less

Product Codes – P04, R04, P14, R14

11.5 psi or less

Product Codes – P02, R02, P12, R12

9.0 psi or less

Product Codes – P01, R01, P11, R11

7.8 psi or less

Segment 1

Sub Octane “Blended” Conventional Gasolines as 10vol% Ethanol

Handblend

(Seattle and Renton terminals)

	Jan	Feb	Mar	Apr	Note 1 May	Jun	Jul	Aug	Note 2, 3 Sept	Oct	Nov	Dec
Cycle 1	16.00	16.0	16.0	14.5	10.0	10.0	10.0	10.0	10.0	14.5	16.0	16.0
Cycle 2	16.00	16.0	16.0	10.0	10.0	10.0	10.0	10.0	10.0	14.5	16.0	16.0
Cycle 3	16.00	16.0	16.0	10.0	10.0	10.0	10.0	10.0	10.0	14.5	16.0	16.0
Cycle 4	16.00	16.0	14.5	10.0	10.0	10.0	10.0	10.0	12.5	14.5	16.0	16.0
Cycle 5	16.00	16.0	14.5	10.0	10.0	10.0	10.0	10.0	12.5	14.5	16.0	16.0

Bold Vapor Pressure designations reflect EPA summer season + 1 psi waiver with 10 vol% EtOH

Note ¹ EPA requires terminal tankage to be 9.0 psi on May 1

Note ² Product may be delivered by the pipeline on 9/16 at 12.5 psi

Note ³ Product intended for Washington State retail locations west of 122° Longitude may be delivered by the pipeline on 9/16 at 14.5 psi.

Product Codes – P16, R16	16.0 psi or less
Product Codes – P15, R15	14.5 psi or less
Product Codes – P14, R14	12.5 psi or less
Product Codes – P12, R12	10.0 psi or less
Product Codes – P11, R11	8.8 psi or less

SECTION 3.B

OPLCo Vapor Pressure Schedule Full Octane and Sub-Octane “Base” Conventional Gasolines Segments 2 and 3

(Includes Tacoma, Vancouver and Portland terminals)

	Jan	Feb	Mar	Note 3 Apr	Note 1 May	Note 1 Jun	Jul	Aug	Note 2 Sept	Oct	Nov	Dec
Cycle 1	15.0	15.0	13.5	9.0	7.8	7.8	7.8	7.8	7.8	13.5	15.0	15.0
Cycle 2	15.0	15.0	13.5	9.0	7.8	7.8	7.8	7.8	7.8	13.5	15.0	15.0
Cycle 3	15.0	13.5	9.0	9.0	7.8	7.8	7.8	7.8	7.8	13.5	15.0	15.0
Cycle 4	15.0	13.5	9.0	9.0	7.8	7.8	7.8	7.8	11.5	13.5	15.0	15.0
Cycle 5	15.0	13.5	9.0	7.8	7.8	7.8	7.8	7.8	11.5	13.5	15.0	15.0

Bold Vapor Pressure designations reflect EPA summer season

Note ¹ EPA requires terminal tankage to be 9.0 psi on May 1 and 7.8psi on June 1. Both comply with EPA depending on RVP Area served.

Note ² Product may be delivered by the pipeline on 9/16 at 11.5 psi

Note ³ During the month of April, unleaded gasoline products destined for use in the Portland area will be allowed to have a maximum vapor pressure of 9.0 psi and will change to a 7.8 psi maximum vapor pressure on the last cycle of April.

Product intended for use outside of the Portland 7.8 psi RVP Area may be 9.0 psi provided the shipper executes the Letter of Indemnity.

Product Codes – P06, R06, P16, R16	15.0 psi or less
Product Codes – P05, R05, P15, R15	13.5 psi or less
Product Codes – P04, R04, P14, R14	11.5 psi or less
Product Codes – P02, R02, P12, R12	9.0 psi or less
Product Codes – P01, R01, P11, R11	7.8 psi or less

Segments 2 and 3

Sub Octane “Blended” Conventional Gasolines as 10vol% Ethanol Handblend

(Includes Tacoma, Vancouver and Portland terminals)

	Jan	Feb	Mar	Note 3 Apr	Note 1 May	Jun	Jul	Aug	Note 2 Sept	Oct	Nov	Dec
Cycle 1	16.0	16.0	14.5	10.0	8.8	8.8	8.8	8.8	8.8	14.5	16.0	16.0
Cycle 2	16.0	16.0	14.5	10.0	8.8	8.8	8.8	8.8	8.8	14.5	16.0	16.0
Cycle 3	16.0	14.5	10.0	10.0	8.8	8.8	8.8	8.8	8.8	14.5	16.0	16.0
Cycle 4	16.0	14.5	10.0	10.0	8.8	8.8	8.8	8.8	12.5	14.5	16.0	16.0
Cycle 5	16.0	14.5	10.0	8.8	8.8	8.8	8.8	8.8	12.5	14.5	16.0	16.0

Bold Vapor Pressure designations reflect EPA mandated maximums + 1 psi waiver with 10vol% EtOH

Note ¹ EPA requires terminal tankage to be 8.8 psi or 10.0 psi on May 1 depending on RVP Area.

Note ² Product may be delivered by the pipeline on 9/16 at 12.5 psi

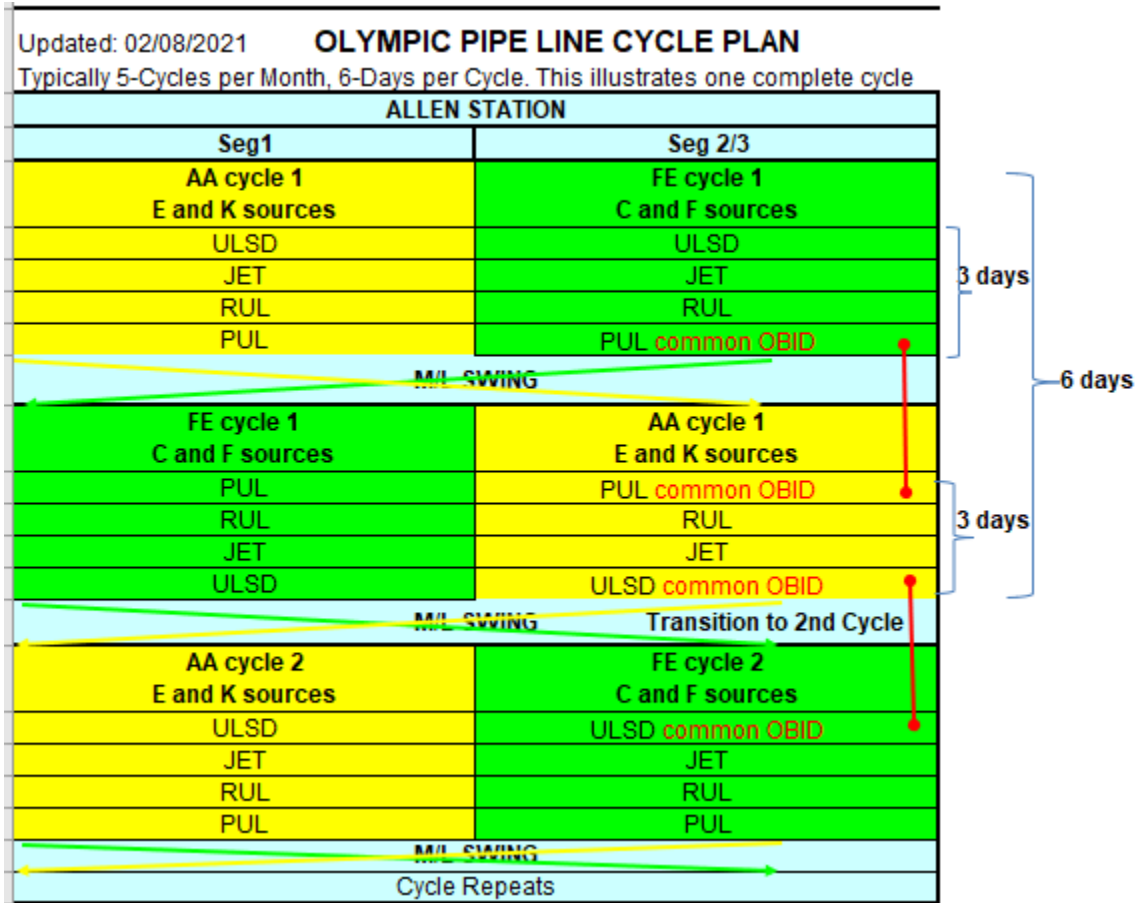
Note ³ During the month of April, unleaded gasoline products destined for use in the Portland RVP Area will be allowed to have a maximum vapor pressure of 10.0 psi and will change to an 8.80 psi maximum vapor pressure on the last cycle of April.

Product intended for use outside of the Portland 8.8 psi RVP Area may be 10.0 psi provided the shipper executes the Letter of Indemnity.

Product Codes – P16, R16	16.0 psi or less
Product Codes – P15, R15	14.5 psi or less
Product Codes – P14, R14	12.5 psi or less
Product Codes – P12, R12	10.0 psi or less
Product Codes – P11, R11	8.8 psi or less

SECTION 3.C BATCH CYCLE PLAN

The cycle plan allows shippers to alternate liftings from all four Northwest refineries and delivering to all markets terminating at Olympic Facilities. The cycle plan begins at Allen Station where the Anacortes and Ferndale laterals converge and alternate between segments approximately every three days. This event is referred to as a “Mainline Swing” (M/L Swing). Each month’s fungible product code is designated by the RVP Schedule for the fuel types listed in the cycle plan. Off cycle products and segregated products are placed before or after the fungible batch group.



Example RVP SCHEDULE from Winter month Nominations Detail Letter

Segment 1	D85 all cycles Fungible	J94 all cycles Fungible	J84 all cycles Fungible	
1 st Cycle	2 nd Cycle	3 rd Cycle	4 th Cycle	5 th Cycle
P16 & R16	P16 & R16	P16 & R16	P16 & R16	P16 & R16

The cycle plan defines the fungibility shown in the RVP schedule. Shippers may request product not in the RVP Schedule. Shippers can expect these batches to be adjacent the fungible batches without breaking fungibility.

Segment 3	D85 all cycles Fungible	J94 all cycles Fungible	J84 all cycles Fungible	
1 st Cycle	2 nd Cycle	3 rd Cycle	4 th Cycle	5 th Cycle
P16 & R16	P16 & R16	P16 & R16	P16 & R16	P16 & R16

SECTION 4

PRODUCT SPECIFICATIONS

SECTION 4.A

PRODUCT SPECIFICATIONS FOR PREMIUM CONVENTIONAL GASOLINE

PRODUCT CODES – P06, P05, P04 P02, P01 - See Notes: (3)(10)(13)

Product Property	ASTM Test Method (9)	Minimum	Maximum	Note
Color	Visual		Undyed	
Appearance	D4176	Clear and Bright		(2)
Distillation, 50% Evaporated °F	D86	170		(1)(14)
Distillation, End point, °F	D86		437	(1)
Vapor Pressure, DVPE, psi - EPA equation April - September - ASTM equation October - March	D5191			(1)
Vapor/Liquid Ratio, min	D4814 / D5188	Report		(1)(4)
Driveability Index, max	D4814		Report	(1)
Gravity, API @ 60 °F	D1298 / D4052	Report	73	(12)
Copper Corrosion, 3 hrs@122 °F	D130		1	
Silver Strip Corrosion	D7667 / 7671		1	
Base Fuel Octane				
Research Number	D2699	Report		
Motor Number	D2700	Report		
Index, (R+M)/2		92.0		
Benzene, Vol %	D 5769 / 3606		Report	(11)
Sulfur, ppm (mg/kg)	D2622 / D5453		80	(7)(9)
Mercaptan, Doctor Test	D4952	Sweet		
or				
Mercaptan Sulfur Wt. %	D3227		0.002	

Lead Content, g Lead/ U.S.gal	D3237		0.03	(5)(12)
Phosphorous, g P / U.S.gal	D3231		0.003	(6)(12)
Gum, mg/100ml (after washing)	D381		5	
Oxidation Stability, minutes	D525	240		
N.A.C.E. or Accelerated Iron Corrosion test	TM0172 / D7548	B+		(8)

NOTES:

1. See ASTM D4814 Table 1, and Table 4, latest revision, for volatility requirements and NIST Handbook 130 (state modifications) for additional specifications.
2. Product is required to be free of suspended water and particulate matter, at a temperature in the range of 68° - 72° F (Ambient Temperature).
3. Product codes P06, P05, P04 P02 and P01 must not contain MTBE. Alcohols are prohibited.
4. See ASTM D4814 Table 3, latest revision and NIST Handbook 130 state modifications for Vapor Lock Protection Class requirements for seasonal volatility.
5. Intentional addition of lead or lead additives to gasoline is prohibited.
6. Only pipeline approved additives may be used in this gasoline. See Olympic Specification Manual Section 2.B.
7. All shipments must not exceed 80 ppm(mg/kg) sulfur.
8. N.A.C.E. and / or Accelerated Iron Corrosion testing is a requirement of the pipeline.
9. In addition to the test methods listed above, Olympic will accept test methods listed in ASTM D4814 latest revision. Referee methods listed in 40 CFR Part 1090 and ASTM D4814, latest revisions, shall be required in cases of dispute.
10. This product is subject to Drag Reducing Additive (DRA) injections
11. ASTM D3606 Standard Test Method for Benzene and Toluene may be used for benzene content testing per 40 CFR Part 1090; ASTM D 5769 is the referee.
12. Pipeline Requirement.

13. In addition to the above specifications, product must meet the most recent or applicable version of ASTM D4814, pertinent state regulations, as well as any additional federal and state regulations.
14. Gasolines known from the origin to retail that will not be blended with ethanol may meet a minimum 50 % evaporated distillation temperature of 66 °C (150. °F) for volatility classes D and E only. Gasolines meeting these limits are not suitable for blending with ethanol. See ASTM D4814, Table 1 footnote G.

SECTION 4.B

PRODUCT SPECIFICATIONS FOR PREMIUM CONVENTIONAL GASOLINE INTENDED FOR 10VOL% ETHANOL BLENDING

**VOLATILITY and OCTANE MAY BE CERTIFIED EITHER NEAT OR WITH 10VOL%
EtOH HANDBLEND**

PRODUCT CODES P16, P15, P14, P12 AND P11 - See Notes:(3)(10)(13)

BASE GASOLINE "NEAT" CERTIFICATION				
Product Property	ASTM Test Method (9)	Minimum	Maximum	Note
Color	Visual		Undyed	
Appearance	D4176	Clear and Bright		(2)
Distillation 50% Evaporated, °F	D86	170		(1)
Distillation, End point °F	D86		437	(1)
Vapor Pressure, DVPE, psi - EPA equation April-September - ASTM equation October-March	D5191			(1)
Vapor/Liquid Ratio, min	D4814 / D5188	Report		(1)(4)
Driveability Index, max	D4814		Report	(1)
Gravity, API @ 60 °F	D1298 / D4052	Report	73	(12)
Copper Corrosion, 3 hrs@122 °F	D130		1	
Silver Strip Corrosion	D7667 / 7671		1	
Base Fuel Octane Research Number Motor Number Index, (R+M)/2	D2699 D2700	Report Report 89.5		
Benzene, Vol %	D5769 / D3606		Report	(11)
Sulfur, ppm (mg/kg)	D2622 / D5453		80	(7)(9)

Mercaptan, Doctor Test or Mercaptan Sulfur Wt. %	D4952 D3227	Sweet	0.002	
Lead Content, g Lead/ U.S.gal	D3237		0.03	(5)(12)
Phosphorous, g P / U.S.gal	D3231		0.003	(6)(12)
Gum, mg/100ml (after washing)	D381		5	
Oxidation Stability, minutes	D525	240		
N.A.C.E. or Accelerated Iron Corrosion test	TM0172 / D7548	B+		(8)(12)
BASE GASOLINE + 10 VOL% ETOH "HANDBLEND" CERTIFICATION - DENATURED FUEL ETHANOL USED FOR BLENDING MUST MEET ASTM D4806 -				
"HANDBLEND" VOLATILITY CERTIFICATION				
Product Property	ASTM Test Method (9)	Minimum	Maximum	Note
Distillation °F, 50% Evaporated	D86	150 145 (Class D & E)		(1) (1), (14)
Vapor Pressure, DVPE, psi • EPA equation April-September • ASTM equation October-March	D5191			(1)
Vapor/Liquid Ratio, min	D4814 / D5188	Report		(4)
Driveability Index, max	D4814		Report	(1)
"HANDBLEND" OCTANE CERTIFICATION				
Blended (Handblend) Octane Research Number Motor Number Anti-Knock Index, (R+M)/2	D2699 D2700	Report Report 92.0		

NOTES:

1. See ASTM D4814 Table 1, and Table 4, latest revision, for volatility specifications and NIST Handbook 130(state modifications) for additional requirements.
2. Product is required to be free of suspended water and particulate matter, at a temperature in the range of 68°- 72° F (Ambient Temperature)
3. Product codes P16, P15, P14, P12 and P11 must not contain MTBE. Alcohols are prohibited.
4. See ASTM D4814 Table 3, latest revision, for Vapor Lock Protection Class requirements for seasonal volatility and NIST Handbook 130-current with WA modifications. "Base Fuel" certification, must meet Min T V/L=20 protection class as Class 1=140 °F, Class 2=133 °F, Class 3=124 °F, Class 4=116 °F, Class 5=105 °F
5. Intentional addition of lead or lead additives to gasoline is prohibited.
6. Only pipeline approved additives may be used in this gasoline. See Olympic Specification Manual Section 2.B.
7. All shipments must not exceed the 80 ppm(mg/kg) sulfur limit.
8. N.A.C.E. and / or Accelerated Iron Corrosion testing is a requirement of the pipeline
9. In addition to the test methods listed above, Olympic will accept test methods listed in ASTM D4814 latest revision. Referee methods listed in 40 CFR Part 1090 and ASTM D4814, latest revisions, shall be required in cases of dispute.
10. This product is subject to Drag Reducing Additive (DRA) injections.
11. ASTM D3606 Standard Test Method for Benzene and Toluene may be used for benzene content testing per 40 CFR Part 1090; ASTM D 5769 is the referee.
12. Pipeline Requirement.
13. In addition to the above specifications, product must meet the most recent or applicable version of ASTM D4814, pertinent state regulations, as well as any additional federal and state regulations.
14. For gasoline-ethanol blends that contain 1% to 15% by volume ethanol, the minimum 50% evaporated distillation temperature shall be 150°F for volatility classes AAA through C. For classes D and E fuels containing 1% to 15% by volume ethanol, the minimum 50% evaporated distillation temperature shall be 145.0°F. See ASTM 4814 Table 1 footnote F.

SECTION 4.C

PRODUCT SPECIFICATIONS FOR

REGULAR CONVENTIONAL GASOLINE

PRODUCT CODES R06, R05, R04, R02 AND R01-See Notes: (3)(10)(13)

Product Property	ASTM Test Method (9)	Minimum	Maximum	Note
Color	Visual		Undyed	
Appearance	D4176	Clear and Bright		(2)
Distillation °F, 50% Evaporated	D86	170		(1)(14)
Distillation, End point or FBP, °F	D86		430	(1)(12)
Vapor Pressure, DVPE, psi - EPA equation April-September - ASTM equation October-March	D5191			(1)
Vapor/Liquid Ratio, min	D4814 / D5188			(1)(4)
Driveability Index, max	D4814		Report	(1)
Gravity, API @ 60 °F	D1298 / D4052	Report	73	(12)
Copper Corrosion, 3 hrs@122 °F	D130		1	
Silver Strip Corrosion	D7667 / 7671		1	

Base Fuel Octane				
Research Number	D2699	Report		
Motor Number	D2700	Report		
Index, (R+M)/2		87.0		
Benzene, Vol %	D5769 / D3606		Report	(11)
Sulfur, ppm (mg/kg)	D2622 / D5453		80	(7)(9)
Mercaptan Sulfur, Doctor test or Mercaptan Sulfur Wt. %	D4952 D3227	Sweet	 0.002	
Lead Content, g Lead/ U.S.gal	D3237		0.03	(5)(12)
Phosphorous, g P / U.S.gal	D3231		0.003	(6)(12)
Gum, mg/100ml (after washing)	D381		5	
Oxidation Stability, minutes	D525	240		
N.A.C.E. or Accelerated Iron Corrosion test	TM0172 / D7548	B+		(8)(12)

NOTES:

1. See D4814 Table 1 and Table 4, latest revision, for volatility requirements, and NIST Handbook 130(state modifications) for additional specifications.
2. Product is required to be free of suspended water and particulate matter, at a temperature in the range of 68°- 72° F (Ambient Temperature)
3. Product codes: R06, R05, R04, R02 and R01 must not contain MTBE. Alcohols are prohibited.
4. See ASTM D4814 Table 3, latest revision, and NIST Handbook 130 state modifications, for Vapor Lock Protection Class requirements for seasonal volatility.
5. Intentional addition of lead or lead additives to gasoline is prohibited.
6. Only pipeline approved additives may be used in this gasoline. See Olympic Specification Manual Section 2.B.
7. All shipments must be below the 80 ppm(mg/kg) sulfur limit.

8. N.A.C.E. and / or Accelerated Iron Corrosion testing is a requirement of the pipeline.
9. In addition to the test methods listed above, Olympic will accept test methods listed in ASTM D4814, latest revision. Referee Methods listed in 40 CFR Part 1090 or D4814, latest revision, shall be required in cases of dispute.
10. This product is subject to Drag Reducing Additive (DRA) injections.
11. ASTM D3606 Standard Test Method for Benzene and Toluene may be used for benzene content testing per 40 CFR Part 1090; ASTM D 5769 is the referee.
12. Pipeline Requirement.
13. In addition to the above specifications, product must meet the most recent or applicable version of ASTM D4814, pertinent state regulations, as well as any additional federal and state regulations.
14. Gasolines known from the origin to retail that will not be blended with ethanol may meet a minimum 50 % evaporated distillation temperature of 66 °C (150. °F) for volatility classes D and E only. Gasolines meeting these limits are not suitable for blending with ethanol. See ASTM D4814, Table 1 footnote G.

SECTION 4.D

PRODUCT SPECIFICATIONS FOR REGULAR CONVENTIONAL GASOLINE INTENDED FOR 10VOL% EtOH BLENDING

**VOLATILITY and OCTANE MAY BE CERTIFIED EITHER NEAT OR WITH 10VOL%
EtOH HANDBLEND**

PRODUCT CODES R16, R15, R14, R12 AND R11- See Notes: (3)(9)(10)(12)

BASE GASOLINE "NEAT" CERTIFICATION				
Product Property	ASTM Test Method (8)	Minimum	Maximum	Note
Color	Visual		Undyed	
Appearance	D4176	Clear and Bright		(2)
Distillation, °F, 50% Evaporated	D86	170		(1)
Distillation, End point, °F	D86		430	(1)(11)
Vapor Pressure, DVPE, psi - EPA equation April- September - ASTM equation October- March	D5191			(1)
Vapor/Liquid Ratio, min	D4814 / D5188	Report		(1)(4)
Driveability Index, max	D4814		Report	(1)
Gravity, API @ 60 °F	D1298 / D4052	Report	73	(11)
Copper Corrosion, 3 hrs @122 °F	D130		1	
Silver Strip Corrosion	D7667 / 7671		1	
Base Fuel Octane				
Research Number	D2699	Report		
Motor Number	D2700	Report		
Index, (R+M)/2		83.5		

Benzene, Vol %	D5769 /D3606		Report	(10)
Sulfur, ppm (mg/kg)	D2622 / D5453		80	(6)
Mercaptan Sulfur, Doctor test or Mercaptan Sulfur Wt. %	D4952 D3227	Sweet	 0.002	
Lead Content, g Lead/ U.S.gal	D3237		0.03	(5)(11)
Phosphorous, g P / U.S.gal	D3231		0.003	(5)(11)
Gum, mg/100ml (after washing)	D381		5	
Oxidation Stability, minutes	D525	240		
N.A.C.E. or Accelerated Iron Corrosion test	TM0172 / D7548	B+		(7)(11)

BASE GASOLINE + 10 VOL% ETOH “HANDBLEND” CERTIFICATION Denatured Fuel ETHANOL USED FOR BLENDING MUST MEET ASTM D4806				
“HANDBLEND” VOLATILITY CERTIFICATION				
Product Property	ASTM Test Method (8)	Minimum	Maximum	Note
Distillation °F, 50% Evaporated	D86	150 145 (Class D & E)		(1) (1)(13)
Vapor Pressure, DVPE, psi • EPA equation April-September • ASTM equation October - March	D5191			(1)
Vapor/Liquid Ratio, min	D4814 / D5188	Report		(4)
Driveability Index, max	D4814		Report	(1)
“HANDBLEND” OCTANE CERTIFICATION				
Blended (Handblend) Octane				

Research Number	D2699	Report		
Motor Number	D2700	Report		
Anti-Knock Index, (R+M)/2		87.0		

NOTES:

1. See ASTM D4814 Table 1, and Table 4, latest revision, for volatility specifications and NIST Handbook 130(state modifications) for additional requirements.
2. Product is required to be free of suspended water and particulate matter, at a temperature in the range of 68°-72° F (Ambient Temperature)
3. Product codes R16, R15, R14, R12 and R11 must not contain MTBE. Alcohols are prohibited.
4. See ASTM D4814 Table 3, latest revision, for Vapor Lock Protection Class requirements for seasonal volatility and current NIST Handbook 130 with WA modifications. "Base Fuel" certification, must meet Min T V/L=20 protection class as Class 1=140 °F, Class 2=133 °F, Class 3=124 °F, Class 4=116 °F, Class 5=105 °F
5. Intentional addition of lead or lead additives to gasoline is prohibited. Only pipeline approved additives may be used in this gasoline. See Olympic Specification Manual Section 2.B.
6. All shipments must not exceed the 80 ppm(mg/kg) sulfur limit.
7. N.A.C.E. and / or Accelerated Iron Corrosion testing is a requirement of the pipeline.
8. In addition to the test methods listed above, Olympic will accept test methods listed in ASTM D4814, latest revision. Referee methods listed in 40 CFR Part 1090 and ASTM D4814, latest revisions, shall be required in case of dispute.
9. This product is subject to Drag Reducing Additive (DRA) injections.
10. ASTM D3606 Standard Test Method for Benzene and Toluene may be used for benzene content testing per 40 CFR Part 1090; ASTM D 5769 is the referee.
11. Pipeline Requirement.
12. In addition to the above specifications, product must meet the most recent or applicable version of ASTM D4814, pertinent state regulations, as well as any additional federal and state regulations.
13. For gasoline-ethanol blends that contain 1% to 15% by volume ethanol, the minimum 50% evaporated distillation temperature shall be 150°F for volatility classes AAA through C. For classes D and E fuels containing 1% to 15% by volume ethanol, the minimum 50% evaporated distillation temperature shall be 145.0°F. See ASTM 4814 Table 1 footnote F.

SECTION 4.E

PRODUCT SPECIFICATIONS FOR

ULTRA LOW SULFUR DIESEL FUEL #2

PRODUCT CODE D85 - See Notes: (1)(15)

Product property	ASTM Test Method (14)	Minimum	Maximum	Note
Gravity, API @ 60 °F	D1298 / D4052	30	40	(16)
Flash Point, °F	D93A	130		(2)(16)
Viscosity, cST @ 104 °F	D445 / D7042	1.9	4.1	(9)
Cloud Point, °F	D2500 / D5773	See Note 4		(4)(16)
Total Sulfur, ppm (mg/kg)	D2622 / D5453		11	(16)
Corrosion, 3 hrs @122 °F	D130		1	(16)
Carbon Residue on 10 % distillation residue, wt. %	D524		0.35	
Ash, wt. %	D482		0.01	
Sediment & Water, vol%	D2709		0.05	
Cetane Number	D613 / D4737	40.0		(11)(12)
Cetane Index or Aromatic, vol. %	D976 / D4737 D5186 / D1319	40.0	35.0	(5)
Lubricity by (HFRR), micron(μm) max, wear scar	D6079 / D7688		520	(7)
Distillation, °F	D86			

50% recovered 90% recovered End Point	D2887(correlated to D86)	Report 539.6	640.4 700	(8)(16)
Haze Rating@68-72°F(Ambient)	D4176		2	(3)(16)
Color	D1500 / D6045		2.5 Undyed	(13)
Appearance	D 4176	Clear and Bright		(3)
Product Acceptance Temperature			120 °F	(16)
Renewable Diesel			5%	(10)
N.A.C.E. or Accelerated Iron Corrosion test	TM0172 / D7548	B+		(6)(16)

NOTES:

1. In addition to above specification, products must meet 40 CFR Part 1090 and ASTM D975 latest revisions.
2. Test method ASTM D93 is the referee method.
3. Product is required to be free of suspended water and particulate matter, at a temperature in the range of 68°F-72° F (Ambient Temperature). Product must be undyed.
4. Maximum Cloud Point:
 - +14 °F November through February.
 - +24 °F March through October

Appropriate low temperature operability properties should be agreed upon between the fuel supplier and purchaser for the intended use and expected ambient temperatures.
5. Cetane Index or Aromatic Content. Cetane Index ASTM D975 minimum requirement by ASTM D976 or D4737 per 40 CFR Part 1090. Aromatic Content by ASTM D5186 or ASTM D1319.
6. N.A.C.E. and / or Accelerated Iron Corrosion testing is a requirement of the pipeline.
7. Lubricity additives are prohibited on the Olympic pipeline. Product must meet Lubricity specifications where end user receives fuel.
8. Alternate method ASTM D2887 may be correlated to ASTM D86, but in case of dispute, ASTM D86 is the referee method.

9. Bias-corrected values from ASTM D7042 may be used as alternative. In case of dispute, Test Method ASTM D445 shall be used as the referee method.
10. May contain up to 5% Renewable Diesel. Renewable diesel is a liquid fuel derived from 100% hydrotreated bio-mass feedstocks that meets the registration requirements for fuels and fuel additives established by the EPA under section 211 of the Clean Air Act and the requirements of ASTM D975. Please note that Renewable diesel containing fatty acid esters (FAME, FAEE, or other esters) is prohibited on Olympic Pipeline.
11. Indicate on Certificate of Analysis when Cetane improver is added: "Contains Cetane Improver 2 -Ethyl hexyl Nitrate at or below 1200 ppm."
12. Where cetane number by ASTM D613 is not available, ASTM D4737 can be used as an approximation. In case of dispute, results from ASTM D 613 shall prevail.
13. ASTM D1500 is the referee method.
14. In addition to the test methods listed above, Olympic will accept the alternative test methods listed in ASTM D 975 latest revision. Referee methods listed in 40 CFR Part 1090 and ASTM D 975 latest revisions shall be required in cases of dispute.
15. This product is subject to Drag Reducing Additive (DRA) injections.
16. Pipeline requirement.

SECTION 4.F

PRODUCT SPECIFICATIONS FOR

ULTRA LOW SULFUR DIESEL FUEL #1

PRODUCT CODE D81 - See Notes (1)(6)(15)

Product Property	ASTM Test Method (15)	Minimum	Maximum	Note
Gravity, API @ 60 °F	D1298 / D4052	37		(11)
Flash Point, °F	D93A	105		(2)(11)
Viscosity, cST @ 104 °F	D445 / D7042	1.3	2.4	(12)
Cloud Point, °F	D2500 / D5773		-29	(4)(11)
Total Sulfur, ppm (mg/kg)	D5453 / D2622		11	(11)
Corrosion, 3 hrs @ 122 °F	D130		1	(11)
Carbon Residue on 10% distillation residue, wt %	D524		0.15	
Ash, wt %	D482		0.01	
Sediment & Water, vol%	D2709		0.05	
Cetane Number	D613 / D4737	40.0		(10)(13)
Cetane Index or Aromatic, vol. %	D976 / D4737 D5186 / D1319	40.0	35.0	(5)
Lubricity by (HFRR), micron(μm) max, wear scar	D6079 / D7688		520	(7)
Distillation, °F 50% recovered 90% recovered End Point	D86 or D2887 (correlated to D86)	Report	550.4 700	(8) (11)

Haze Rating, @ 68-72 °F	D4176		1	(3)
Color	D1500 / D6045		2.5 Undyed	(14)
Appearance	D4176	Clear and Bright		(3)
Product Acceptance Temperature			100 °F	(11)

NOTES:

1. In addition to the above specification, products must meet 40 CFR Part 1090 and ASTM D975 latest revisions.
2. ASTM D93 is the referee method.
3. Product is required to be free of suspended water and particulate matter, at a temperature in the range of 68° - 72° F (Ambient Temperature)
4. Alternate method ASTM D5773 may be used, but in case of dispute, ASTM D2500 will be referee method.
5. Cetane Index or Aromatic Content. Cetane Index ASTM D975 minimum requirement by ASTM D976 or D4737 per 40 CFR Part 1090. Aromatic Content by ASTM D5186 or ASTM D1319.
6. This product will be subject to Drag Reducing Additive (DRA) injections.
7. Lubricity additives are prohibited in Olympic Pipeline. Product must meet Lubricity specifications where end user receives fuel.
8. Alternate method ASTM D2887 may be correlated to ASTM D86, but in case of dispute, ASTM D86 is the referee method.
9. Reserved.
10. Indicate on Certificate of Analysis when Cetane improver is added: "Contains Cetane Improver 2 -Ethyl hexyl Nitrate at or below 1200 ppm."
11. Pipeline requirement.
12. Bias-corrected values from ASTM D7042 may be used as alternative. In case of dispute, ASTM D445 shall be used as the referee method.
13. Where cetane number by ASTM D613 is not available, ASTM D4737 can be used as an approximation. In case of dispute, results from ASTM D613 shall prevail.
14. ASTM D1500 shall be used as the referee method.

15. In addition to the test methods listed above, Olympic will accept the alternative test methods listed in ASTM D975 latest revision. Referee Methods listed in 40 CFR Part 1090 and ASTM D975 latest revisions shall be required in case of dispute.

SECTION 4.G

PIPELINE SPECIFICATIONS FOR

MARINE DIESEL FUEL - DMA

PRODUCT CODE - D70 – See Notes: (8)(10)

Product Property	ASTM /ISO Test Methods (8)	Minimum	Maximum	Note
Product Acceptance Temperature			120 °F	(4)
Kinematic Viscosity @ 40 °C, cST (mm ² /s)	D445 / ISO 3104	2.000	6.000	
API and Density @ 15 °C, kg/m ³	D1298 / D4052 / ISO 3675 / ISO12185	27.5 (API)	890 (Density)	
Cetane Index	D4737 / ISO 4264	40		(7)
Sulfur, mass %	D2622 / D4294 / ISO 8754/ ISO 14596		0.050	(4)
Sulfur, ppm (mg/kg)	D2622 / D4294 / ISO 8754/ ISO 14596		500	(4)
Flash Point, °C (°F)	D93A / ISO 2719	62.8 (145)		
Hydrogen Sulfide, mg/kg	IP 570/D7621		0.00	(4)
Acid Number, mg KOH/g	D664		0.5	
Oxidation Stability, g/m ³	D2274 / ISO12205		25	
Carbon Residue on 10% distillation residue, mass%	D4730 / ISO10370		0.30	
Pour Point, °C (°F)	D97 / ISO 3016			(1)
Winter			-6 (21.2)	
Summer			0 (32.0)	

Appearance	D4176	Clear and Bright		(2)
Haze Rating@ 68-72°F(Ambient)	D4176		2	(2)(4)
Ash, mass. %	D482 / ISO 6245		0.01	
Color	Visual		Undyed	(3)
Distillation, Endpoint °F	D 86		700	(4)
N.A.C.E. or Accelerated Iron Corrosion test	TM0172 / D7548	B+		(5)
Lubricity, HFRR, µm	D 6079/ISO 12156-1		520	(6)

NOTES:

1. Alternate method for pour point, ASTM D5949 may be used. In the event of dispute, ASTM D97 will be the referee method.
2. Product is required to be free of suspended water and particulate matter, at a temperature in
the range of 68°-72° F (Ambient Temperature)
3. Product shall not contain dye.
4. Pipeline requirement.
5. N.A.C.E. and / or Accelerated Iron Corrosion testing is a requirement of the pipeline
6. Lubricity additives are prohibited in the Olympic pipeline. Product must meet Lubricity specifications where end user receives fuel.
7. Indicate on Certificate of Analysis when Cetane improver is added: "Contains Cetane Improver 2 -Ethyl Hexyl Nitrate at or below 1200 ppm."
8. In addition to the test methods listed above, Olympic will accept test methods listed in ISO 8217-latest revision. Referee Methods listed in ISO 8217 latest revision shall be required in case of dispute.
9. This product will be subject to Drag Reducing Additive (DRA) injection.
10. Product shall meet the latest revision of ISO 8217 Category F-DMA and any additional pipeline requirements as noted above.

SECTION 4.H

PRODUCT SPECIFICATIONS FOR

Ultra Low Sulfur Jet A, Jet A1

**Conventional and Sustainable Aviation Fuel (SAF): Conventional +
Synthetic Paraffinic Kerosene (SPK) Blends or Co-processed (A) (B)
(1)(9)(10)(11)(13)**

PRODUCT CODE – J84 / J80(12)

Additional Tests and requirements marked * apply to blended SAF (conventional Jet blended with Synthetic Paraffinic Kerosenes (SPK))

Additional Tests and requirements marked ** apply to coprocessed Jet A and Jet A-1

Test	Units	ASTM Test Method (6), A, B (C)	Minimum	Maximum	Notes
Appearance	Visual	D4176 Proc. 1	Clear & Bright		(3)
Gravity/Density *Top, Upper, Middle, Lower, Bottom. Layer gravity results required on conventional+ SPK blends only. May report all level API Gravity on Refinery Certificate of Quality(RCQ) and	API / kg/m ³	D1298 or D4052	37.0 / 775	51.0 / 840	(5)(7)(11)(14)

layer gravities in RCQ comments.					
COMPOSITION					
Acidity, total	mg KOH/g	D3242		0.10	
Aromatics	vol % vol%	D1319 / D6379 / D8305	8.0 *, ** or 8.4 *, **	25 / 26.5	C, D, R, (L)(M)(N) (O) (11)
Sulfur, total	Mg/kg	D2622 / D 4294		11	
Mercaptan Sulfur	mass%	D3227		0.003	E
VOLATILITY					
Distillation		D86 / D2887 (correlated to D86)			(4) F, G, H, I, (P)(Q)(R)
10% recovered	°C / °F			205 / 401	
50% recovered	°C / °F			Report	
Endpoint	°C / °F			300 / 572	
Residue	vol. %			1.5	
Loss	vol. %			1.5	
T50-T10 *, **	°C		15		(L)
T90-T10 *, **	°C		40		(L)
Flash Point	°F	D56 / D3828 D93A	105		(5), J, K
FLUIDITY					
Freezing Point	°C	D2386, D5972, D7153		-40 Jet A, -47 Jet A-1	M, N (7)
Viscosity cST at -20°C	mm ² /s	D445 / D 7042		8.0	O, P,
Viscosity cST at -40°C *, **	mm ² /s			12.0	(G)(H)(I)
COMBUSTION					

Net Heat of combustion	MJ/kg	D4529, D3338, D4809	42.8		Q
One of the following: Smoke Point or Smoke Point and Naphthalenes	mm mm vol%	D1322 D1322 and D1840 / D8305	25 18	3.0	R
Additives				See Notes	2
Copper strip, 2hr. @ 100° C max.	Rating	D130		No. 1	
STABILITY					
JFTOT @ 275°C JFTOT @ 280°C ** Pressure drop Tube Deposit	mm Hg, max rating nm	D3241 One of the following requirements shall be met: Annex A1 VTR, VTR Color Code: no peacock or abnormal color deposits Annex A2 ITR or Annex A3 ETR, nm average over area of 2.5 mm ²		25 < code 3 85	S,T,U (5) (D)(E)(F)
CONTAMINANTS					

Existent Gum	mg/100ml	D381		7	
Particulates	mg / liter	D5452		1.0	(5)
MSEP	Rating	D3948	85	100	V
Electrical Conductivity	pS/m	D2624		See Notes	W
Lubricity*, **	mm	D5001		0.85	(7)
Unconverted esters and fatty acids	Mg/kg	D7797		50 15**	(J) (K) (8)

Additional tests and requirements marked * apply to blended SAF (Conventional Jet + Synthetic Paraffinic Kerosenes (SPK))

Additional tests and requirements marked ** apply to coprocessed Jet A and Jet A-1

Notes

- (1) In addition to the above specifications the conventional jet, conventional jet+synthetic paraffinic kerosene (SPK) blends, or coprocessed jet fuel must meet the latest revision of ASTM D1655 at origin and prescribe to the required properties of aviation turbine fuel at the time and place of delivery.
- (2) The only additives permitted in the aviation turbine fuel are outlined in ASTM D1655 TABLE 2: Detailed Information for Additives for Aviation Turbine Fuels.
- (3) The aviation turbine fuel shall be visually free of undissolved water, sediment and suspended water.
- (4) Alternate method D2887 may be correlated to D86, but in case of dispute, D86 is the referee method.
- (5) Pipeline requirement.
- (6) In addition to the test methods listed above, other test methods listed in ASTM D1655 Table 1 can be used. Note that in cases of dispute among measurements the referee methods listed in ASTM D1655 shall be used.
- (7) Tests and requirements marked * only apply to blended SAF (conventional Jet + SPK)
- (8) Tests and requirements marked ** only apply to coprocessed Jet A and Jet A-1
- (9) If Jet A-1 specification is required, the nominator shall inform scheduling, and the Jet A-1 will be shipped as segregated from the fungible jet liftings.

- (10) Sustainable Aviation fuel SAF - is finished jet fuel meeting the requirements of Defence Standard 91-091 or ASTM D1655 that contains synthetic hydrocarbons produced from renewable feedstocks.
- (11) SAF (Sustainable Aviation Fuel) can be produced by two different processes:
- A. The blending of a synthetic paraffin kerosene (SPK) produced from renewable sources and conventionally derived jet fuel. (See Table A. below)
 - The SPK is produced from a standalone unit using approved renewable feedstocks and processes and the SPK is certified against the requirements of D7566.
 - The SPK is blended up to 50% (see Table A for percentages allowed-but always refer to latest ASTM D7566 revision to confirm) with conventionally derived Jet fuel and certified against the requirements of ASTM D1655.
 - Tank Homogeneity testing on Sustainable Aviation Fuel blends (conventional jet +SPK) requires API Gravity on Top, Upper, Middle, Lower, Bottom with variances no greater than +/- 0.7 API Gravity. Tank stratification on Sustainable Aviation Fuel blends is not permissible.
 - It is the shippers responsibility to ensure that the Aromatics content, volume %, shall not be lower on any tank layer than the minimum Aromatics content as listed in the table above.
 - B. The coprocessing of up to 5% approved renewable feedstocks with crude oil derived distillate streams.
 - The jet fuel, containing up to 5% renewable components is certified against the requirements of ASTM D1655

Table A. Synthetic Paraffin Kerosene (SPK) from renewable sources

D7566 Annex	Process type ¹	Common Name	Max % in Final Blend ²
A1	FISCHER-TROPSCH HYDROPROCESSED SYNTHESIZED PARAFFINIC KEROSENE	FT-SPK	50
A2	SYNTHESIZED PARAFFINIC KEROSENE FROM HYDROPROCESSED ESTERS AND FATTY ACIDS	HEFA-SPK	50
A3	SYNTHESIZED ISO-PARAFFINS FROM HYDROPROCESSED FERMENTED SUGARS	SIP	10
A4	SYNTHESIZED KEROSENE WITH AROMATICS DERIVED BYALKYLATION OF LIGHTAROMATICS FROM NON PETROLEUM SOURCES	SPK/A	50
A5	ALCOHOL-TO-JET SYNTHETIC PARAFFINIC KEROSENE (ATJ-SPK)	ATJ-SPK	50
A6	SYNTHESIZED KEROSENE FROM HYDROTHERMALCONVERSION OF FATTYACID ESTERS AND FATTY ACIDS	CHJ	50
A7	SYNTHESIZED PARAFFINIC KEROSENE FROM HYDROPROCESSED HYDROCARBONS, ESTERSAND FATTY ACIDS	HC-HEFA SPK	10
A8	ALCOHOL-TO-JET SYNTHETIC PARAFFINIC KEROSENE WITH AROMATICS (ATJ-SKA)	ATJ-SKA	50
¹ See ASTM D 7566 for feedstock reference ² See ASTM D 7566 Blending of the synthetic blending component with Jet A or Jet A-1 fuel or conventional blending components cannot exceed the concentration specified in 6.1 for the applicable annex.			

- (12) J80 designates In Bond Jet fuel for Foreign Trade Zone transportation. J80 is fungible by specification. However, U.S. Customs and Border Protection (CBP) has requested J80 to be designated as segregated.

- (13) Inbound Jet fuel tanks may be tested by Olympic for free water using Shell Water Detection kits, HydroLight or Aqua-Glo. The inbound free water maximum is 30 ppm.
- (14) Tank Stratification on conventional jet: Tank layers Upper, Middle, Lower differing by more than 0.7 API is discouraged and will require additional layer certifications. Contact Olympic QA.

ASTM D1655 Notes for reference only- always review the latest revision of ASTM D 1655.

- A** ASTM D1655 - Section 7.2: Test results shall not exceed the maximum or be less than the minimum values specified in D1655 Table 1. No allowance shall be made for the precision of the test methods. To determine conformance to the specification requirement, a test result may be rounded to the same number of significant figures as in Table 1 using Practice ASTM E29. Where multiple determinations are made, the average result, rounded in accordance with Practice ASTM E29, shall be used.
- B** The test methods indicated in this table are referred to in Section 11 of ASTM D1655. Where applicable, referee methods are italicized in ASTM D1655 Table 1.
- C** In analyzing Aviation Turbine Fuel by Test Method D1319 or IP 156, users shall not report results obtained using any of the following lot numbers of Fluorescent Indicator Dyed Gel: 3000000975, 3000000976, 3000000977, 3000000978, 3000000979, and 3000000980.
- D** Results from Test Method D8305 shall be bias-corrected using the bias-correction equation for total aromatics in Section 13 (Precision and Bias) of Test Method D8305. The bias-corrected aromatics result shall also be used in Test Method D3338.
- E** The mercaptan sulfur determination may be waived if the fuel is considered sweet by the doctor test described in Test Method D4952.
- F** D86 and IP 123 distillation of jet fuel is run at Group 4 conditions, except Group 3 condenser temperature is used.
- G** D2887/IP 406 results shall be converted to estimated D86 or IP 123 results by application of the correlation in Appendix X4 on Correlation for Jet and Diesel Fuel in Test Method D2887 or Annex G of IP 406. Distillation residue and loss limits provide control of the distillation process during the use of Test Method D86, and they do not apply to Test Method D2887/IP 406. Distillation residue and loss shall be reported as “not applicable” (N/A) when reporting D2887 results.
- H** Results from Test Method D7344 and D7345 shall be corrected for relative bias as described in each of the test methods.
- I** Data supporting inclusion of the Test Method D7344 methodology is on file at ASTM International Headquarters and can be obtained by requesting Research Reports

RR: D02-1621 and RR: D02-1855. Contact ASTM Customer Service at service@astm.org.

- J** A higher minimum flash point specification can be agreed upon between purchaser and supplier.
- K** Relative to D56, results obtained by Test Method: D93 can be up to 1.5 °C higher; IP 170, IP 534, and D7236 can be up to 0.5 °C higher; D3828 (IP 523) can be up to 0.5 °C lower (a research report is pending being filed at ASTM and is available at the Energy Institute as ILS2019_MMS_1).
- L** For Annex A1.2.2 co-processing, the more stringent limits and test methods listed in Table A1.1 shall be applied at point of manufacture. Downstream from manufacture standard Table 1 limits and test methods apply.
- M** Other freezing points can be agreed upon between supplier and purchaser.
- N** During downstream distribution if the freezing point of the fuel is very low and cannot be determined within the ASTM D2386/IP 16 lowest achievable temperature of minus 65 °C, if no crystals appear during cooling of the fuel and when the thermometer indicates a temperature of minus 65 °C, the freezing point shall be recorded as below minus 65 °C. This limit does not apply if the freezing point is measured by D5972/IP 435, D7153/IP 529, or D7154/IP 528.
- O** 1 mm²/s = 1 cSt.
- P** Test Method D7042 results shall be converted to bias-corrected kinematic viscosity results by the application of the correction described in Test Method D7042 for jet fuel at –20 °C (currently subsection 15.4.4).
- Q** For all grades use either Eq 1 or Table 1 in Test Method D4529 or Eq 2 in Test Method D3338. Calculate and report the net heat of combustion corrected for the sulfur content when using Test Method D4529 and D3338 empirical test methods. Test Method D4809 may be used as an alternative.
- R** Results from Test Method D8305 shall be bias-corrected using the bias-correction equation for total polynuclear aromatics in Section 13 (Precision and Bias) of Test Method D8305
- S** In analyzing Aviation Turbine Fuel by Test Method D3241 or IP 323, users shall not report results obtained using a 230 Mk IV instrument containing an inline internal non-consumable fuel filter located upstream of the 0.45 µm pre-filter.
- T** D3241/IP 323 Thermal Stability is a critical aviation fuel test, the results of which are used to assess the suitability of jet fuel for aviation operational safety and regulatory compliance.

The integrity of D3241/IP 323 testing requires that heater tubes (test coupons) meet the requirements of D3241 Table 2 and give equivalent D3241 results to the heater tubes

supplied by the original equipment manufacturer (OEM). A test protocol to demonstrate equivalence of heater tubes from other suppliers is on file at

ASTM International Headquarters and can be obtained by requesting Research Report RR: D02-1550. Heater tubes and filter kits, manufactured by the OEM (PAC, 8824

Fallbrook Drive, Houston, TX 77064) were used in the development of the D3241/IP 323 test method. Heater tube and filter kits, manufactured by Falex (Falex Corporation, 1020 Airpark Dr., Sugar Grove, IL, 60554-9585) were demonstrated to give equivalent results (see D3241 for research report references). These historical facts should not be construed as an endorsement or certification by ASTM International.

- U** Tube deposit ratings shall be measured by D3241 Annex A2 ITR or Annex A3 ETR, when available. If the Annex A2 ITR device reports “N/A” for a tube’s volume measurement, the test shall be a failure and the value reported as >85 nm. Visual rating of the heater tube by the method in D3241 Annex A1 is not required when Annex A2 ITR or Annex A3 ETR deposit thickness measurements are reported. In case of dispute between results from visual and metrological methods, the referee shall be considered the Annex A3 ETR method if available, otherwise Annex A2 ITR.
- V** At point of manufacture. See ASTM D1655 X1.13 for guidance concerning the application of microseparator results in fuel distribution.
- W** If electrical conductivity additive is used, the conductivity shall not exceed 600 pS/m at the point of use of the fuel. When electrical conductivity additive is specified by the purchaser, the conductivity shall be 50 to 600 pS/m under the conditions at point of delivery.

$$1 \text{ pS/m} = 1 \times 10^{-12} \Omega^{-1} m^{-1}$$

From ASTM D 1655 TABLE A1.1 -Reference Only-always review the most recent revision of ASTM D 1655.

Extended Requirements of Aviation Turbine Fuels Containing Co-hydroprocessed Esters and Fatty Acids, Fischer-Tropsch Hydrocarbons, or Hydrocarbons from Esters and Fatty Acids - Footnotes

- (A) Applies at the point of manufacture only.
- (B) Applies for the finished batch of jet fuel as opposed to the product of the refinery hydroprocessing unit which is used to blend the finished batch of jet fuel.
- (C) Where applicable, the referee test methods are identified in Table A1.1. in ASTM D 1655.
- (D) A D3241 test temperature of 280 °C has been selected to help ensure that reactive compounds introduced through co-hydroprocessing of esters and fatty acids are limited.

Research is ongoing on the actual requirement for a more restrictive thermal stability limit.

- (E) Metal Deactivator (MDA), as described in Table 2 and the associated footnotes, may not be used to meet this requirement.
- (F) Refer to ASTM D1655 Table 1, Footnote T. (Footnote T Also noted below)
- (G) The kinematic viscosity specification of 12.0 mm²/s at -40 °C maximum mitigates the potential risk of increased viscosity due to n-paraffin enrichment. Not all Sustainable Aviation Fuel blends (conventional jet +SPK) will require viscosity at -40 °C please refer to ASTM D 7566 for requirement. Compared to conventional hydrocarbons, a co-hydroprocessed esters and fatty acids stream may contain a higher concentration of n-paraffins. Research is ongoing on how n-paraffin enrichment from co-hydroprocessed esters and fatty acids impact low temperature viscosity. The results of that research will be used to confirm the necessity of and possibly adjust this requirement.
- (H) D445 or IP71, Section 1 allows measuring the viscosity at -40 °C, however the precision values were determined down to -20 °C. Data correlating test results at -40 °C for D445 and other related ASTM test methods is provided in Research Report RR:D02-1776.
- (I) Use the temperature scanning procedure specified in Test Method D7042.
- (J) Applies to co-processing esters and fatty acids and hydrocarbons from previously hydroprocessed esters and fatty acids.
- (K) The ability for D7797/IP 583 to identify carbonyl containing compounds in addition to FAMES is acknowledged. The reported value may be corrected for a local sample-specific bias related to trace carbonyl species inherent in aviation turbine fuel derived from conventional sources (as per A1.2.2.4 (2)). Corrected values shall be identified as such.
- (L) Applies only to co-processing hydrocarbons from previously hydroprocessed esters and fatty acids.
- (M) Minimum aromatics contents are based on current experience with the synthetic fuels and those levels were established from what is typical for refined jet fuel. Research is ongoing on the actual need for aromatics.
- (N) Refer to D1655 Table 1, Footnote C. (Also noted below)
- (O) Results from Test Method D8305 shall be bias-corrected using the bias-correction equation for total aromatics in Section 13 (Precision and Bias) of Test Method D8305.
- (P) D86 and IP 123 distillation of jet fuel is run at Group 4 conditions, except Group 3 condenser temperature is used.
- (Q) D2887 or IP 406 results shall be converted to estimated D86 or IP 123 results by application of the correlation in Appendix X4 on Correlation for Jet and Diesel Fuel in Test Method D2887 or Annex G of IP 406. Distillation residue and loss limits provide control of the distillation process during the use of Test Method D86, and they do not apply to Test Method D2887 or IP 406. Distillation residue and loss shall be reported as “not applicable” (N/A) when reporting D2887 results.
- (R) Results from Test Method D7344 and D7345 shall be corrected for relative bias as described in each of the test methods.

SECTION 4.I

PRODUCT SPECIFICATIONS FOR

High Sulfur Jet A / Jet A-1

Conventional and Sustainable Aviation Fuel (SAF): Conventional + Synthetic Paraffinic Kerosene (SPK) Blends or Co-processed (A)(B) (1)(9)(10)(11)(13)

PRODUCT CODE – J94 / J90(12)

Additional tests and requirements marked * apply to blended SAF (conventional jet blended with SPK)

Additional tests and requirements marked ** apply to coprocessed Jet A and Jet A-1

Test	Units	ASTM Test Method (6), A, B (C)	Minimum	Maximum	Notes
Appearance	Visual	D4176 Proc. 1	Clear & Bright		(3)
Gravity/Density *Top, Upper, Middle, Lower, Bottom. Layer gravity results required on conventional+ SPK blends only. May report all level API Gravity on Refinery Certificate of Quality(RCQ) and layer gravities in RCQ comments.	API / kg/m ³	D1298 or D4052	37.0 / 775	51.0 / 840	(5)(7)(11)(14)

COMPOSITION					
Acidity, total	mg KOH/g	D3242		0.10	
Aromatics	vol % vol%	D1319 / D6379 / D8305	8.0 *, ** or 8.4 *, **	25 / 26.5	C, D, R, (L)(M)(N)(O)(11)
Sulfur, total	mass%	D2622 / D 4294		0.30	
Mercaptan Sulfur	mass%	D3227		0.003	E
VOLATILITY					
Distillation		D86 / D2887 (correlated to D86)			(4) F, G, H, I, (P)(Q)(R)
10% recovered	°C / °F			205 / 401	
50% recovered	°C / °F			Report	
Endpoint	°C / °F			300 / 572	
Residue	vol. %			1.5	
Loss	vol. %			1.5	
T50-T10 *, **	°C		15		(L)
T90-T10 *, **	°C		40		(L)
Flash Point	°F	D56 / D3828 D93A	105		(5), J, K
FLUIDITY					
Freezing Point	°C	D2386, D5972, D7153		-40 Jet A, -47 Jet A-1	M, N (7)
Viscosity cST at -20°C Viscosity cST at -40°C *, **	mm ² /s mm ² /s	D445 / D7042		8.0 12.0	O, P, (G) (H) (I)
COMBUSTION					

Net Heat of combustion	MJ/kg	D4529, D3338, D4809	42.8		Q
One of the following: Smoke Point or Smoke Point and Naphthalenes	mm mm vol%	D1322 D1322 and D1840 / D8305	25 18	3.0	R
Additives				See Notes	2
Copper strip, 2hr. @ 100° C max.	Rating	D130		No. 1	
STABILITY					
JFTOT @ 275°C JFTOT @ 280°C ** Pressure drop Tube Deposit	mm Hg, max rating nm	D3241 One of the following requirements shall be met: Annex A1 VTR, VTR Color Code: no peacock or abnormal color deposits Annex A2 ITR or Annex A3 ETR,		25 < code 3 85	S, T, U (5) (D)(E)(F)

		nm average over area of 2.5 mm ²			
CONTAMINANTS					
Existent Gum	mg/100ml	D381		7	
Particulates	mg / liter	D5452		1.0	
MSEP	Rating	D3948	85	100	V
Electrical Conductivity	pS/m	D2624		See Notes	W
Lubricity*, **	mm	D5001		0.85	(7)
Unconverted esters and fatty acids	Mg/kg	D7797		50 15**	(J), (K), (8)

Additional tests and requirements marked * apply to blended SAF (blends with SPK)

Additional tests and requirements marked ** apply to coprocessed Jet A and Jet A-1

Notes

- (1) In addition to the above specifications the conventional jet, conventional jet+ synthetic paraffinic kerosene (SPK) blends, or coprocessed jet fuel must meet the latest revision of ASTM D1655 at origin and prescribe to the required properties of aviation turbine fuel at the time and place of delivery.
- (2) The only additives permitted in the aviation turbine fuel are outlined in ASTM D1655 TABLE 2: Detailed Information for Additives for Aviation Turbine Fuels.
- (3) The aviation turbine fuel shall be visually free of undissolved water, sediment and suspended water.
- (4) Alternate method D2887 may be correlated to D86, but in case of dispute, D86 is the referee method.
- (5) Pipeline requirement.
- (6) In addition to the test methods listed above, other test methods listed in ASTM D1655 Table 1 can be used. Note that in cases of dispute among measurements the referee methods listed in ASTM D1655 shall be used.
- (7) Tests and requirements marked * only apply to blended SAF (conventional Jet + SPK)
- (8) Tests and requirements marked ** only apply to coprocessed Jet A and Jet A-1

- (9) If Jet A-1 specification is required, the nominator shall inform scheduling, and the Jet A-1 will be shipped as segregated from the fungible jet liftings.
- (10) Sustainable Aviation fuel SAF - is finished jet fuel meeting the requirements of Defence Standard 91-091 or ASTM D1655 that contains synthetic hydrocarbons produced from renewable feedstocks.
- (11) SAF (Sustainable Aviation Fuel) can be produced by two different processes:
- A. The blending of a synthetic paraffin kerosene (SPK) produced from renewable sources and conventionally derived jet fuel. (See Table A. below)
 - The SPK is produced from a standalone unit using approved renewable feedstocks and processes and the SPK is certified against the requirements of D7566.
 - The SPK is blended up to 50% (see Table A for percentages allowed-but always refer to latest ASTM D7566 revision to confirm) with conventionally derived Jet fuel and certified against the requirements of ASTM D1655.
 - Tank Homogeneity testing on Sustainable Aviation Fuel blends (conventional jet +SPK) requires API Gravity on Top, Upper, Middle, Lower, Bottom with variances no greater than +/- 0.7 API Gravity. Tank stratification on Sustainable Aviation Fuel blends is not permissible.
 - It is the shippers responsibility to ensure that the Aromatics content, volume %, shall not be lower on any tank layer than the minimum Aromatics content as listed in the table above.
 - B. The coprocessing of up to 5% approved renewable feedstocks with crude oil derived distillate streams.
 - The jet fuel, containing up to 5% renewable components is certified against the requirements of ASTM D1655

Table A. Synthetic Paraffin Kerosene (SPK) from renewable sources

D7566 Annex	Process type ¹	Common Name	Max % in Final Blend ²
A1	FISCHER-TROPSCH HYDROPROCESSED SYNTHESIZED PARAFFINIC KEROSENE	FT-SPK	50
A2	SYNTHESIZED PARAFFINIC KEROSENE FROM HYDROPROCESSED ESTERS AND FATTY ACIDS	HEFA-SPK	50
A3	SYNTHESIZED ISO-PARAFFINS FROM HYDROPROCESSED FERMENTED SUGARS	SIP	10
A4	SYNTHESIZED KEROSENE WITH AROMATICS DERIVED BYALKYLATION OF LIGHTAROMATICS FROM NON PETROLEUM SOURCES	SPK/A	50
A5	ALCOHOL-TO-JET SYNTHETIC PARAFFINIC KEROSENE (ATJ-SPK)	ATJ-SPK	50
A6	SYNTHESIZED KEROSENE FROM HYDROTHERMALCONVERSION OF FATTYACID ESTERS AND FATTY ACIDS	CHJ	50
A7	SYNTHESIZED PARAFFINIC KEROSENE FROM HYDROPROCESSED HYDROCARBONS, ESTERSAND FATTY ACIDS	HC-HEFA SPK	10
A8	ALCOHOL-TO-JET SYNTHETIC PARAFFINIC KEROSENE WITH AROMATICS (ATJ-SKA)	ATJ-SKA	50
¹ See ASTM D 7566 for feedstock reference ² See ASTM D 7566 Blending of the synthetic blending component with Jet A or Jet A-1 fuel or conventional blending components cannot exceed the concentration specified in 6.1 for the applicable annex.			

- (12) J90 designates In Bond Jet fuel for Foreign Trade Zone transportation. J80 is fungible by specification. However, U.S. Customs and Border Protection (CBP) has requested J80 to be designated as segregated.

- (13) Inbound Jet fuel tanks may be tested by Olympic for free water using Shell Water Detection kits, HydroLight or Aqua-Glo. The inbound free water maximum is 30 ppm.
- (14) Tank Stratification on conventional jet: Tank layers Upper, Middle, Lower differing by more than 0.7 API is discouraged and will require additional layer certifications. Contact Olympic Quality Assurance Advisor.

ASTM D1655 Notes for reference only- always review the latest revision of ASTM D 1655.

- A** ASTM D1655 - Section 7.2: Test results shall not exceed the maximum or be less than the minimum values specified in D1655 Table 1. No allowance shall be made for the precision of the test methods. To determine conformance to the specification requirement, a test result may be rounded to the same number of significant figures as in Table 1 using Practice ASTM E29. Where multiple determinations are made, the average result, rounded in accordance with Practice ASTM E29, shall be used.
- B** The test methods indicated in this table are referred to in Section 11 of ASTM D1655. Where applicable, referee methods are italicized in ASTM D1655 Table 1.
- C** In analyzing Aviation Turbine Fuel by Test Method D1319 or IP 156, users shall not report results obtained using any of the following lot numbers of Fluorescent Indicator Dyed Gel: 3000000975, 3000000976, 3000000977, 3000000978, 3000000979, and 3000000980.
- D** Results from Test Method D8305 shall be bias-corrected using the bias-correction equation for total aromatics in Section 13 (Precision and Bias) of Test Method D8305. The bias-corrected aromatics result shall also be used in Test Method D3338.
- E** The mercaptan sulfur determination may be waived if the fuel is considered sweet by the doctor test described in Test Method D4952.
- F** D86 and IP 123 distillation of jet fuel is run at Group 4 conditions, except Group 3 condenser temperature is used.
- G** D2887/IP 406 results shall be converted to estimated D86 or IP 123 results by application of the correlation in Appendix X4 on Correlation for Jet and Diesel Fuel in Test Method D2887 or Annex G of IP 406. Distillation residue and loss limits provide control of the distillation process during the use of Test Method D86, and they do not apply to Test Method D2887/IP 406. Distillation residue and loss shall be reported as “not applicable” (N/A) when reporting D2887 results.
- H** Results from Test Method D7344 and D7345 shall be corrected for relative bias as described in each of the test methods.

- I** Data supporting inclusion of the Test Method D7344 methodology is on file at ASTM International Headquarters and can be obtained by requesting Research Reports
RR: D02-1621 and RR: D02-1855. Contact ASTM Customer Service at service@astm.org.
- J** A higher minimum flash point specification can be agreed upon between purchaser and supplier.
- K** Relative to D56, results obtained by Test Method: D93 can be up to 1.5 °C higher; IP 170, IP 534, and D7236 can be up to 0.5 °C higher; D3828 (IP 523) can be up to 0.5 °C lower (a research report is pending being filed at ASTM and is available at the Energy Institute as ILS2019_MMS_1).
- L** For Annex A1.2.2 co-processing, the more stringent limits and test methods listed in Table A1.1 shall be applied at point of manufacture. Downstream from manufacture standard Table 1 limits and test methods apply.
- M** Other freezing points can be agreed upon between supplier and purchaser.
- N** During downstream distribution if the freezing point of the fuel is very low and cannot be determined within the ASTM D2386/IP 16 lowest achievable temperature of minus 65 °C, if no crystals appear during cooling of the fuel and when the thermometer indicates a temperature of minus 65 °C, the freezing point shall be recorded as below minus 65 °C. This limit does not apply if the freezing point is measured by D5972/IP 435, D7153/IP 529, or D7154/IP 528.
- O** 1 mm²/s = 1 cSt.
- P** Test Method D7042 results shall be converted to bias-corrected kinematic viscosity results by the application of the correction described in Test Method D7042 for jet fuel at –20 °C (currently subsection 15.4.4).
- Q** For all grades use either Eq 1 or Table 1 in Test Method D4529 or Eq 2 in Test Method D3338. Calculate and report the net heat of combustion corrected for the sulfur content when using Test Method D4529 and D3338 empirical test methods. Test Method D4809 may be used as an alternative.
- R** Results from Test Method D8305 shall be bias-corrected using the bias-correction equation for total polynuclear aromatics in Section 13 (Precision and Bias) of Test Method D8305
- S** In analyzing Aviation Turbine Fuel by Test Method D3241 or IP 323, users shall not report results obtained using a 230 Mk IV instrument containing an inline internal non-consumable fuel filter located upstream of the 0.45 µm pre-filter.

T D3241/IP 323 Thermal Stability is a critical aviation fuel test, the results of which are used to assess the suitability of jet fuel for aviation operational safety and regulatory compliance.

The integrity of D3241/IP 323 testing requires that heater tubes (test coupons) meet the requirements of D3241 Table 2 and give equivalent D3241 results

to the heater tubes supplied by the original equipment manufacturer (OEM). A test protocol to demonstrate equivalence of heater tubes from other suppliers is on file at

ASTM International Headquarters and can be obtained by requesting Research Report RR: D02-1550. Heater tubes and filter kits, manufactured by the OEM (PAC, 8824

Fallbrook Drive, Houston, TX 77064) were used in the development of the D3241/IP 323 test method. Heater tube and filter kits, manufactured by Falex (Falex Corporation, 1020 Airpark Dr., Sugar Grove, IL, 60554-9585) were demonstrated to give equivalent results (see D3241 for research report references). These historical facts should not be construed as an endorsement or certification by ASTM International.

U Tube deposit ratings shall be measured by D3241 Annex A2 ITR or Annex A3 ETR, when available. If the Annex A2 ITR device reports “N/A” for a tube’s volume measurement, the test shall be a failure and the value reported as >85 nm. Visual rating of the heater tube by the method in D3241 Annex A1 is not required when Annex A2 ITR or Annex A3 ETR deposit thickness measurements are reported. In case of dispute between results from visual and metrological methods, the referee shall be considered the Annex A3 ETR method if available, otherwise Annex A2 ITR.

V At point of manufacture. See ASTM D1655 X1.13 for guidance concerning the application of microseparometer results in fuel distribution.

W If electrical conductivity additive is used, the conductivity shall not exceed 600 pS/m at the point of use of the fuel. When electrical conductivity additive is specified by the purchaser, the conductivity shall be 50 to 600 pS/m under the conditions at point of delivery.

$$1 \text{ pS/m} = 1 \times 10^{-12} \Omega^{-1} \text{ m}^{-1}$$

From ASTM D 1655 TABLE A1.1 -Reference only -always review the latest revision of ASTM D 1655

Extended Requirements of Aviation Turbine Fuels Containing Co-hydroprocessed Esters and Fatty Acids, Fischer-Tropsch Hydrocarbons, or Hydrocarbons from Esters and Fatty Acids - Footnotes

(A) Applies at the point of manufacture only.

(B) Applies for the finished batch of jet fuel as opposed to the product of the refinery hydroprocessing unit which is used to blend the finished batch of jet fuel.

- (C) Where applicable, the referee test methods are identified in Table A1.1. in ASTM D 1655.
- (D) A D3241 test temperature of 280 °C has been selected to help ensure that reactive compounds introduced through co-hydroprocessing of esters and fatty acids are limited. Research is ongoing on the actual requirement for a more restrictive thermal stability limit.
- (E) Metal Deactivator (MDA), as described in Table 2 and the associated footnotes, may not be used to meet this requirement.
- (F) Refer to ASTM D1655 Table 1, Footnote T. (Footnote T Also noted below)
- (G) The kinematic viscosity specification of 12.0 mm²/s at -40 °C maximum mitigates the potential risk of increased viscosity due to n-paraffin enrichment. Not all Sustainable Aviation Fuel blends (conventional jet +SPK) will require viscosity at -40 °C please refer to ASTM D 7566 for requirement. Compared to conventional hydrocarbons, a co-hydroprocessed esters and fatty acids stream may contain a higher concentration of n-paraffins. Research is ongoing on how n-paraffin enrichment from co-hydroprocessed esters and fatty acids impact low temperature viscosity. The results of that research will be used to confirm the necessity of and possibly adjust this requirement.
- (H) D445 or IP71, Section 1 allows measuring the viscosity at -40 °C, however the precision values were determined down to -20 °C. Data correlating test results at -40 °C for D445 and other related ASTM test methods is provided in Research Report RR:D02-1776.
- (I) Use the temperature scanning procedure specified in Test Method D7042.
- (J) Applies to co-processing esters and fatty acids and hydrocarbons from previously hydroprocessed esters and fatty acids.
- (K) The ability for D7797/IP 583 to identify carbonyl containing compounds in addition to FAMES is acknowledged. The reported value may be corrected for a local sample-specific bias related to trace carbonyl species inherent in aviation turbine fuel derived from conventional sources (as per A1.2.2.4 (2)). Corrected values shall be identified as such.
- (L) Applies only to co-processing hydrocarbons from previously hydroprocessed esters and fatty acids.
- (M) Minimum aromatics contents are based on current experience with the synthetic fuels and those levels were established from what is typical for refined jet fuel. Research is ongoing on the actual need for aromatics.
- (N) Refer to D1655 Table 1, Footnote C. (Also noted below)
- (O) Results from Test Method D8305 shall be bias-corrected using the bias-correction equation for total aromatics in Section 13 (Precision and Bias) of Test Method D8305.
- (P) D86 and IP 123 distillation of jet fuel is run at Group 4 conditions, except Group 3 condenser temperature is used.
- (Q) D2887 or IP 406 results shall be converted to estimated D86 or IP 123 results by application of the correlation in Appendix X4 on Correlation for Jet and Diesel Fuel in Test Method D2887 or Annex G of IP 406. Distillation residue and loss limits provide control of the distillation process during the use of Test Method D86, and they do not apply to Test Method D2887 or IP 406. Distillation residue and loss shall be reported as "not applicable" (N/A) when reporting D2887 results.
- (R) Results from Test Method D7344 and D7345 shall be corrected for relative bias as described in each of the test methods.

Section 4.J

PRODUCT SPECIFICATIONS FOR ULTRA LOW SULFUR HEATING OIL # 2 – Certified NTDF

PRODUCT CODE - D95 (ULSHO-NTDF) - See Notes:(1)(11)(12)(13)

Product Property	ASTM Test Method (11)	Minimum	Maximum	Note
Gravity, API @ 60 °F / Density at 15 °C, kg/m ³	D1298 / D4052	30 (API)	40 (API) 876 (Density)	(2)
Flash Point, °C/°F	D93A	54.4 / 130		(2)
Viscosity, cSt @ 40 °C / 104°F	D445 / D7042	1.9	4.1	(7)
Pour Point, °C/°F	D97 / D5949		-6 (+21.2)	(5)
Total Sulfur, ppm (µg/g)	D2622 / D5453		11	(2)
Corrosion 3 hrs. @ 122 °F	D130		1	(2)
Lubricity by (HFRR), micron max, wear scar	D6079 / D7688		520	(8)
Ramsbottom Carbon, wt% on 10 % distillation residue	D524		0.35	
Sediment & Water, vol%	D2709		0.05	
Distillation, °C/°F	D86 / D2887			(9)
90% recovered		282 / 539.6	338 / 640.4	
End Point			371 / 700	(2)
Haze Rating	D4176		2	(4)
Color	D1500 / D6045		2.5 / Undyed	(2)(3)
Appearance	D4176	Clear and Bright		(4)
Product Acceptance Temp			120 °F	

Renewable Diesel			5%	(10)
N.A.C.E. Corrosion test / Accelerated Iron Corrosion	TM0172 / D7548	B+		(6)(2)

NOTES:

1. In addition to the above specifications, product must meet latest revisions of ASTM D396 No.2 S-15.
2. Pipeline requirement.
3. Dye is not required on Olympic pipeline.
4. Product is required to be free of suspended water and particulate matter, at a temperature in the range of 68°F-72° F (Ambient Temperature)
5. Pour Point, -6 °C / +21.2°F is the max fungible specification. Appropriate low temperature operability properties may be agreed upon between the fuel supplier and purchaser for the intended use and expected ambient temperatures, however if the agreed temperature is higher than the fungible specification the product must be shipped segregated.
6. N.A.C.E. TM0172 or Accelerated Iron Corrosion ASTM D7548 testing is a requirement of the pipeline.
7. Bias-corrected values from ASTM D7042 may be used as alternative. In case of dispute, ASTM D445 shall be used as the referee method.
8. Lubricity additives are prohibited in Olympic pipeline. Product must meet Lubricity specifications where end user receives fuel.
9. Alternate method ASTM D2887 may be correlated to ASTM D86, but in case of dispute, ASTM D86 is the referee method.
10. May contain up to 5% Renewable Diesel. Renewable diesel is a liquid fuel derived from 100% hydrotreated bio-mass feedstocks that meets the registration requirements for fuels and fuel additives established by the EPA under section 211 of the Clean Air Act and the requirements of ASTM D396. Please note that Renewable diesel containing fatty acid ester (FAME, FAEE, or other esters) is prohibited on Olympic Pipeline.
11. In addition to the test methods listed above, Olympic will accept test methods listed in ASTM D396 latest revision. Referee methods listed in ASTM D396, latest revision, shall be required in case of dispute.
12. This product code will be subject to Drag Reducing Additive (DRA) injections.
13. Certified NTDF. Heating Oil certified as Non-Transportation Fuel. This fuel is designated for non-transportation use.

Section 4.K

PRODUCT SPECIFICATIONS FOR ULTRA LOW SULFUR HEATING OIL # 2

PRODUCT CODE - D96 (ULSHO) - See Notes:(1)(11)(12)

Product Property	ASTM Test Method (11)	Minimum	Maximum	Note
Gravity, API @ 60 °F / Density at 15 °C, kg/m ³	D1298 / D4052	30	40 876	
Flash Point, °C/°F	D93A	54.4 / 130		(2)
Viscosity, cSt @ 40 °C / 104°F	D445 / D7042	1.9	4.1	(7)
Pour Point, °C/°F	D97 / D5949		-6 /+21.2	(5)
Total Sulfur, ppm (µg/g)	D2622 / D5453		11	(2)
Corrosion 3 hrs. @ 122 °F	D130		1	(2)
Lubricity by (HFRR), micron max, wear scar	D6079 / D7688		520	(8)
Ramsbottom Carbon, wt% on 10 % distillation residue	D524		0.35	
Sediment & Water, vol%	D2709		0.05	
Distillation, °C/°F 90% recovered End Point	D86 / D2887	 282 / 539.6	 338 / 640.4 371 / 700	 (9) (2)
Haze Rating	D4176		2	(4)(2)
Color	D1500 / D6045		2.5 / Undyed	(2)(3)
Appearance	D4176	Clear and Bright		(4)
Product Acceptance Temp			120 °F	

Renewable Diesel			5%	(10)
N.A.C.E. Corrosion test / Accelerated Iron Corrosion	TM0172 / D7548	B+		(6)(2)

NOTES:

1. In addition to the above specifications, product must meet latest revisions of ASTM D396 No.2 S-15.
2. Pipeline requirement.
3. Dye is not required on Olympic pipeline.
4. Product is required to be free of suspended water and particulate matter, at a temperature in the range of 68°F-72° F (Ambient Temperature)
5. Pour Point, -6 °C / +21.2°F is the max fungible specification. Appropriate low temperature operability properties may be agreed upon between the fuel supplier and purchaser for the intended use and expected ambient temperatures, however if the agreed temperature is higher than the fungible specification the product must be shipped segregated.
6. N.A.C.E. TM0172 or Accelerated Iron Corrosion ASTM D7548 testing is a requirement of the pipeline.
7. Bias-corrected values from ASTM D7042 may be used as alternative. In case of dispute, ASTM D445 shall be used as the referee method.
8. Lubricity additives are prohibited in Olympic pipeline. Product must meet Lubricity specifications where end user receives fuel.
9. Alternate method ASTM D2887 may be correlated to ASTM D86, but in case of dispute, ASTM D86 is the referee method.
10. May contain up to 5% Renewable Diesel. Renewable diesel is a liquid fuel derived from 100% hydrotreated bio-mass feedstocks that meets the registration requirements for fuels and fuel additives established by the EPA under section 211 of the Clean Air Act and the requirements of ASTM D396. Please note that Renewable diesel containing fatty acid ester (FAME, FAEE, or other esters) is prohibited on Olympic Pipeline.
11. In addition to the test methods listed above, Olympic will accept test methods listed in ASTM D396 latest revision. Referee methods listed in 40 CFR Part 1090 and ASTM D396, latest revision, shall be required in case of dispute.
12. This product code will be subject to Drag Reducing Additive (DRA) injections.

Section 4.L

PRODUCT SPECIFICATIONS FOR ULTRA LOW SULFUR HEATING OIL # 1 – Certified NTDF

PRODUCT CODE – D91 (ULSHO-NTDF) – See Notes (1)(11)(12)(13)

Product Property	ASTM Test Method (11)	Minimum	Maximum	Note
Gravity, API @ 60 °F / Density at 15 °C, kg/m ³	D1298 / D4052	37	51 837	(2)
Flash Point, °C/°F	D93A	40.5 / 105		(2)
Viscosity, cSt @ 40 °C / 104°F	D445 / D7042	1.3	2.4	(7)
Pour Point, °C/°F	D97 / D5949		-18 / -0.4	(5)
Total Sulfur, ppm (mg/kg)	D2622 / D5453		11	(2)
Corrosion 3 hrs. @ 122 °F	D130		1	(2)
Lubricity by (HFRR), micron (µm)max, wear scar	D6079 / D7688		520	(8)
Ramsbottom Carbon, wt% on 10 % distillation residue	D524		0.15	
Sediment & Water, vol%	D2709		0.05	
Distillation, °C/°F 90% recovered End Point	D86 / D2887	 215 / 419	 288 / 550.4 371 / 700	(9) (2)
Haze Rating	D4176		1	(4)
Color	D1500 / D6045		2.5 / Undyed	(2)(3)
Appearance	D4176	Clear and Bright		(4)
Product Acceptance Temp			100 °F	(2)

NOTES:

1. In addition to the above specifications, product must meet latest revisions of ASTM D396 No.1 - S15 grade.

2. Pipeline requirement.
3. Dye is not required on Olympic pipeline.
4. Product is required to be free of suspended water and particulate matter, at a temperature in the range of 68°F-72° F (Ambient Temperature)
5. Pour Point, -18 °C / -0.4°F is the max fungible specification. Appropriate low temperature operability properties may be agreed upon between the fuel supplier and purchaser for the intended use and expected ambient temperatures, however if the agreed temperature is higher than the fungible specification noted above, the product must be shipped segregated.
6. Reserved
7. Bias-corrected values from ASTM D7042 may be used as alternative. In case of dispute, ASTM D445 shall be used as the referee method.
8. Lubricity additives are prohibited in Olympic pipeline. Product must meet Lubricity specifications where end user receives fuel.
9. Alternate method ASTM D2887 may be correlated to ASTM D86, but in case of dispute, ASTM D86 is the referee method.
10. Reserved.
11. In addition to the test methods listed above, Olympic will accept test methods listed in ASTM D396 latest revision. Referee methods listed in 40 CFR Part 1090 and ASTM D396, latest revision, shall be required in case of dispute.
12. This product code will be subject to Drag Reducing Additive (DRA) injections.
13. Certified NTDF. Heating Oil certified as Non-Transportation Fuel. This fuel is designated for non-transportation use.

SECTION 5

TARIFF RULES AND RATES

Olympic Pipe Line Company LLC Tariff Rules and Rates are regulated by the WUTC and FERC.

Bp operates Olympic Pipe Line Company LLC, providing Tariff rules and rates at:

https://www.bp.com/en_us/united-states/home/products-and-services/pipelines/our-pipelines.html

Once logged on, select **Tariffs**, where you may select the most current WUTC or FERC file for rules and rates.

SECTION 6

GENERAL INFORMATION

Section 6.A

Anatomy of a Batch ID

The following is an example of a batch identification code, which is used on Olympic Pipe Line. When submitting schedule changes, please use the following format:

(This example is for representative purposes only, and is not indicative of proprietary information)

C5X-D85F-XX-1234 * H1 (4567) {S}
123 4 5 6 7 8 9 10 11

- 1 - Letter represents the month (A=Jan, B=Feb, C=March, etc)
- 2 - Number represents the cycle number for the month
- 3 - This letter represents the refinery source (C=BP; F=ConocoPhillips; E=Shell; K=Tesoro; X & Z=Bayview Terminal)
- 4 - The letter, followed by the two-digit number represents the product code (See Sect 1.C)
- 5 - Represents if the tender is (F) fungible, (S) segregated, or (O) off-spec
- 6 - Two letter designation for Shipper Code (See Sect 1.E)
- 7 - Accounting Batch ID (ABID) See Sect 1.A
- 8 - * signifies Segment 1 destination. # signifies Segment 2/3 destination
- 9 - Letter with number is the Terminal Code (See Sect 1.D)
- 10 - Operational Batch ID (OBID) See Sect 1.A
- 11 - Designates that there is a scraper or tool in this batch

Section 6.B

NOMINATION AND SCHEDULING REQUIREMENTS

Nomination Requirements

When a cycle/source-segment is declared as **Prorated**, nominated volumes are not be allowed to exceed shippers' allocation.

When a cycle/source-segment is declared as **Open Nominations**, each shipper nomination is accepted and volumes will be allocated as outlined in the Proration Policy section. (Section 6.C)

The Nomination Period covers a variety of steps over the course of about one week.

- ❑ Shortly after the previous month end close, each shipper's delivered volumes are collected by the Nomination Program for the previous month.
- ❑ This data is used to calculate each shipper's historical volume for the previous twelve months by source-segment.
- ❑ This data will also be used to calculate each shipper's allocation in the event a cycle/source-segment becomes prorated.
 - Allocations are sent in a separate email when the Nominations Detail Letters are issued.
 - Allocation details are explained in the Proration Policy.
- ❑ Approximately one week before nominations are due, the Nomination Period begins when the forecaster issues the Nominations Detail Letter to all active shippers.
- ❑ The Nominations Detail Letter outlines the Period for which nominations are being accepted. Details include:
 - Special instructions
 - Date the Period begins and how many days it includes.
 - The number of cycles in the Period.
 - Planned Maintenance and project work is described.
 - Date Nominations are due.
 - Product codes to be nominated are outlined as per RVP season.
- ❑ Nominations are due by 07:00 on the 13th of each month or the preceding Thursday if the 13th falls on a Friday, Saturday or Sunday. See "[Submitting Nominations](#)" for details.
- ❑ The Nominations Period is closed when all nominations have been accepted by the forecaster and the forecast schedule has been developed
- ❑ The Scheduler will attach the forecast schedule volumes to the current pump schedule on or about the 20th of the month prior to the next period.

Instructions for Submitting Nominations

- ❑ After receiving the Nomination Detail letter each shipper will enter nominations on the Transport 4 customer website.
- ❑ For any assistance in navigating the Transport 4 application, please reach out to the Customer Success Team at: INFO@TRANSPORT4.COM OR (888) 844-9404
- ❑ Once logged on T4, select “Add Nomination” on the Nomination tab.
- ❑ Nominations are entered at the top of the page by selecting all the appropriate fields.
 - Carrier – Select OLY
 - SCD – Select SG1 for Segment 1 and SG3 for Segments 2 and 3 locations
 - Product
 - Applicable cycle
 - Sequence (Leave at “Next”)
 - Nomination Type (Select Fungible or Segregated)
 - Volume – Receipt, Location and Tankage
 - Volume – Delivery, Location and Tankage
 - Add Events (Deliveries) as required
 - Select “Save Nomination”
- ❑ Repeat until all nominations have been entered.

Gasoline Equivalent Factors

	Segment 1	Segment 2/3
Gasoline	1.00	1.00
Jet Fuel	1.60	1.60
Diesel	1.30	1.30

Example: 10,000 bbls of Jet, on Segment 1, equals 16,000 GEQ bbls ($16,000 / 1.6 = 10,000$)

SECTION 6.B cont'd

SCHEDULING REQUIREMENTS

Following receipt of monthly nominations, the schedulers will develop and post the forecast schedule to be attached to the remaining volume of the current months schedule via the T4 website, on or about the 20th of the month. For example: the May forecast volumes will be issued on or about April 20th.

Nominations Schedulers should examine the forecast schedule to verify that shipper volume nominations are included and correct. This schedule should be used as a guide to the approximate date on which products will be pumped and delivered. Also, verify that there are no apparent conflicts between the days shown when pipeline activity will occur, and shipper supply and demand projections. If a problem is detected in the forecast schedule, notify the Scheduler's immediately so that corrective action, if required and possible, can be taken.

After the forecast schedule has been issued, an email will be sent out offering space that is still available on the pipeline. Per the current policy, available space is offered on a first-come, first-served basis, as outlined in the Available Space policy.

Specific information about individual tenders will only be discussed with the shipper-of-record, refinery supplier, and destination terminal. The shipper of record should supply the third party with any information that they need.

It is the shipper's responsibility to ensure Olympic Pipe Line has the correct contact information to receive the schedules and nomination information.

HOURS OF OPERATION

Business Day normal Hours for Schedule Changes

Monday-Friday are the normal business days for the Scheduling Department between the hours of 0800-1600 hours. (Pacific Time) Schedule change requests should be made directly through T4. Questions regarding schedule changes and other details can be communicated to the Scheduling Dept during these times via email or telephone. Any communications that are received during non-business hours will be handled the next business day unless they are of an emergency nature.

Email: OlympicPipelineScheduling@bp.com

Business Day non-business Hours Schedule Changes

Any **EMERGENCY** schedule changes (tank overflow, fire at terminal or refinery, etc) outside of normal hours can be called into the Renton Control Center.

After hours schedule changes will be evaluated to determine if the change will be assessed a Late Schedule Change Request Fee.

Weekend/Holiday Schedule Changes

Schedule changes that impact the weekend or holiday schedule periods must be received by the Olympic Product Movement Scheduler by **13:00 hours (PT)** on Friday, or the day prior to the holiday period. Schedule changes that are received after 13:00 hours, that impact the weekend or holiday schedule period, will receive a Late Schedule Change Request Fee.

Schedule changes that impact the schedule beyond the Monday, or two (2) days after the holiday period, can be called in or emailed to the Olympic Product Movement Scheduler at any time during business hours on Friday, or the day prior to the holiday period.

Olympic observed holidays can be found on T4s' customer website.

SCHEDULE CHANGE REQUESTS

Please enter schedule change requests in T4. This allows all parties to confirm requests on a single platform. Olympic considers a change "valid" when all confirmations have been received.

LATE SCHEDULE CHANGE REQUEST FEES

Late Schedule Change Request fees will be charged to the batches' Shipper of Record. Requests entered in to T4 are considered late if any tankage confirmations are made after the time frame defined by Olympic, (See below). All tankage confirmations must be made before Olympic can process the change request. If the shipper of record is not at cause, the fee should be resolved with the refinery or terminal that was the cause.

NOTE: Requests to increase volume or add a new tender to the pipeline, less than 48 hours ahead of schedule, will be evaluated on a case-by-case basis. If approved, there will be no charge for the increase.

48 Hour Notification

Olympic will charge the shipper of record a late charge fee of **\$1,500 plus \$0.05 per barrel**, for changes made to the pipeline schedule, if they occur less than 48 hours, and greater than or equal to 24 hours, prior to a lifting or delivery, or after the Weekend/Holiday Schedule Change deadline.

24 Hour Notification

Olympic will charge the shipper of record a late schedule change request fee of **\$5,000 plus \$0.10 per barrel**, for changes made to the pipeline schedule, if they occur less than 24 hours prior to lifting or delivery, or after the Weekend/Holiday Schedule Change deadline.

Weekend/Holiday Schedule Changes

Olympic will charge the shipper of record a late schedule change request fee of **\$5,000 plus \$0.10 per barrel**, for changes made to the pipeline schedule, if they occur during the weekend or holiday schedule periods.

WAIVER PROCESS

At Olympic Pipe Line's discretion, we may waive all, or a portion of, the Late Schedule Change Request Fee.

A Late Schedule Change Request Waiver will be evaluated, if received within **five (5) business days** of the Late Schedule Change Request notification. (Email sent by Scheduling, notifying of a Late Schedule Change Request) Waivers received after 5 business days will not be accepted or evaluated.

For waiver application, fill out and submit the Late Schedule Change Waiver Form. The form can be found on the Olympic Shipper's Website, or a Late Schedule Change Waiver Word document can be sent via email. (Send an email to Scheduler to request the Word document)

A waiver, or partial waiver, **may, or may not** be approved for reasons such as:

- ❑ Refinery
 - Mechanical problems
 - Off spec product (Olympic would require notification of this type of event at least 8 hours ahead of time)
 - Refinery unit/component problem
 - Product code change (Product code must be within the same product type. EX: A change from R11 (ULR) to R12 (ULR) may receive a waiver, or partial waiver. A change from R11 (ULR) to P11 (ULP) would not receive a waiver.
 - Change in refinery source location (Change made in the same cycle, segment, and related refinery source. EX: switching from Shell to Tesoro, not Shell to BP)
- ❑ Terminal
 - Containment issues resulting from unscheduled truck rack repairs
 - Situations beyond the control of the receiving terminal
 - Mechanical problems
 - Diversions from one terminal to another that are related to containment, run out, or marketing issues.

If approved, Olympic will allow two waivers for the same instance creating the Late Schedule Change Request to allow the Shipper time to make alternate plans.

Olympic Pipe Line Company reserves the right to evaluate and reject any waiver request.

Approval or rejection will be at the discretion of Olympic Management.

COMMONLY ASKED SCHEDULING QUESTIONS

Q. Can I re-source my scheduled tenders?

A. Batches can be re-sourced from an alternative refinery if it does not create a Segment 1 vs. Segment 2/3 imbalance.

Q. After the forecast is issued, what does Olympic do if there becomes available space?

A. Per the current pro-ration policy, space is offered on a first-come, first-served basis, as outlined in the available space policy.

Q. After hours schedule changes?

A. Schedule changes can be called into the Operations Controllers (425 235-7726) if it is an **EMERGENCY** situation only, (tank over-flow, fire at terminal or refinery etc.) Other schedule changes should be emailed or phoned in to the scheduler office.

Q. Why should I review the daily schedules?

A. A large number of schedule changes occur every day; other shipper's changes will impact timing. Please review each schedule for accuracy and for changes of pumping and delivery times.

Q. When is Friday afternoon and the day before a holiday schedule changes due?

A. Schedule changes that impact the weekend or holiday schedule periods are due to Renton and need to be received by the Olympic Product Movement Scheduler by 1300 hours on Friday or the day prior to the holiday period. These changes should cover Monday or 1 day after the holiday period. Schedule changes can be called in anytime on Friday that impacts the schedule beyond the Monday or 2 days after the holiday period.

Q. Do my changes have to be confirmed by any other authority?

A. Schedule changes that are a reduction to a tender do not have to be confirmed by third parties or terminals. Increases to a tender, or diversions to a different terminal, require confirmation from the shipper of record and terminal approval. If a change does not have all appropriate confirmation prior to 48 hours or after the deadline for weekend/holiday changes for changes during the weekend, it will be considered a late change. If confirmation from other authorities is not received, the change request will be cancelled.

Q. Can I substitute gas for diesel?

A. Volume substitutions into a prorated Segment must be made in gasoline equivalent barrels. Please refer to the appendix for the gasoline equivalent factors.

Q. Why does Olympic have "Late Charges"?

A. Late charge fees are assessed to minimize the impact to the safety of our operation, and not to generate revenue. Late changes require Olympic to shift its operations to manual mode to accommodate the late notification for lifting's and deliveries.

Q. I am a Third Party customer, what information is available?

A. Specific information about individual tenders will only be discussed with the shipper-of-record, refinery supplier and destination terminal. Third party customers should direct their questions to the shipper-of-record. (i.e. the company they have a contract with)

Q. If I cut volume on a batch, what other batch can I add volume to?

A. Prorate Segment 1: If from any source to Segment 1, the new volume must be added in the same cycle and from the same refinery source.

Non-Prorated Segment 1: After the forecast is issued, additional line space may be available in a non-prorated cycle for segment 1. Contact the Olympic scheduling office for available line space.

Segment 2: See Section 6.C for delivery volumes into Tacoma D.F.

Prorated Segment 3: If gasoline or distillate volume is cut from the segment 3, it must be added to a batch pumping in the same cycle.

Non-Prorated Segment 3: After the forecast is issued, additional line space may be available in a non-prorated cycle for segment 3. Contact the Olympic scheduling office for available line space. A maximum of 60,000 barrels of jet may be pumped in any one cycle.

Q. When are the Forecasts/Schedules issued?

A. the schedulers will develop the forecast schedule that is issued, attached to the remaining volume of the current months schedule via the web site, on or about the 20th of the month. For example: the May forecast volumes will be issued on or about April 20th.

The schedules on Friday, or the day prior to a holiday period, are issued as soon as possible after 1300 hours. Schedules will be issued other days as needed.

SECTION 6.C

PRORATION POLICY

PURPOSE OF THE PRORATION POLICY

When there is tendered more petroleum products than can be currently transported on the Carrier's pipeline system, the Carrier shall apportion among shippers in a fair and equitable manner, to avoid discrimination among shippers. Also, not to adversely affect the operation of the Carrier's facilities and to comply with all applicable rules and regulations.

SUMMARY OF THE PRORATION POLICY

The intention of the proration policy is to allocate the pipeline capacity equitably among all active Shippers in the nomination process.

The provisions of the Proration Policy will be in effect when the aggregate volume of petroleum products in a Forecast period by cycle/source/segment exceeds the pipeline capacity.

- ❑ Carrier reserves right to declare Proration prior to accepting nominations based on historical use of pipeline capacity. This will be communicated in the Nominations Detail Letter posted in the Transport 4 bulletin.
- ❑ Individual volumes accepted under Open Nominations are tested to determine proration as outlined in this section "Proration Policy Details (2)(b)(c).

Product movement historical data is stored for each shipper. This database contains all the information required to implement the proration policy.

The policy is designed to allocate available space to shippers based upon two factors:

- 1) Past pipeline usage
 - i) Each shipper's nominations, actual volumes shipped and other information is stored by each period for the preceding 12 months.
 - ii) The proration policy averages each of these factors over a rolling 12-month period resulting in annual factors unless otherwise noted in this policy.
- 2) Past performance of the shipper.
 - i) Shipper Performance: Is the ratio of the actual volume shipped to its nominated volume for each period averaged over the prior 12 months.

PRORATION POLICY DETAILS

The following list outlines the results from algorithms used to compute the values in the Allocation Report for each shipper. These provisions only apply to those cycle/source-segments that are prorated.

If a particular cycle/source-segment is not prorated the shipper will receive the total volume dictated by overall segment allocations.

If a cycle/source-segment is prorated, the following processes illustrate how the Proration Policy distributes volumes among the active shippers.

The first section below is a simple step by step summary of the Allocation Report and provides an explanation of each of the steps.

The second section outlines how the nominations are balanced between cycles or reduced due to over nomination in all cycles for a given source-segment.

The third section outlines how Jet Fuel to Segment three is prorated.

1). Allocation Report Summary

- a) Meter
- b) Segment
- c) Max Capacity
- d) Avg Monthly Volume Shipped
- e) % of Total Segment Volume
- f) Performance Factor
- g) Adjusted for Performance and Capacity
- h) Total Allocation

Allocation Report Details

- a) **Meter:** Indicates the source, "FE" is ConocoPhillips and BP refineries and "AA" is HollyFrontier and Tesoro Refineries.
- b) **Segment:** Indicates Segment 1 which includes Seattle, SeaTac and Renton Deliveries. Segment 2, which include Tacoma. And Segment 3, which includes Vancouver, Linnton, Portland and Willbridge deliveries. (NOTE: Bayview deliveries can be made from each refinery source, whether sourcing to Segment 1, or Segment 2/3)
- c) **Max Capacity:** Computes the total space available in the period on the pipeline by source-segment. The Product Movements department determines number of pumping days allowing for maintenance and projects and multiplies this by an average maximum daily flow rate established for each source-segment.
- d) **Avg Monthly Volume Shipped:** Computes the monthly volume shipped for each shipper over the previous 12 months.
- e) **% of Total Segment Volume:** Computes the Average Volume Percentage for each shipper as the ratio of each shipper's annual historical volume to the total all shipper's annual volume.
- f) **Performance Factor:** The performance factor is the ratio of the shipper's actual shipments to their nominations average over the previous 12 months.
- g) **Adjusted for Performance and Capacity:** This volume is the result of combining the previous calculations.
 - i) The Average Volume Percentage is multiplied by the Max Capacity.
 - ii) A volume surplus is created by those shippers with less than a 1.0 performance factor.
 - iii) This surplus volume is distributed to the shippers with a performance factor > 1.0 by a weighted average. OR, this volume surplus is divided equally among Shippers equally to 1.0 performance factor and if no other shipper has a > 1.0 performance factor. .
- h) **Total Allocation:** This volume is the result of combining the previous calculations.

2) Since the Allocation report is only a Shippers historical guide during Open Nominations, all nominations are tested to determine if individual cycle/segment/sources or if all cycles are at capacity.

When individual cycles in a cycle/segment/source are over capacity:

- Each shipper's volume will be calculated as a ratio of their nomination in the specific cycle/segment/source against the total of all shipper nominations in that cycle/segment/source.
- Shippers must have a minimum batch to move; otherwise, their volume is redistributed to the total volume for the specific cycle/segment/source.
- ⊖ Shippers within these cycles will be notified by email to cut their nominations or move their nominations to other cycle/segment/sources that have been indicated as having available space.

a) When ALL cycle/segment/sources are over capacity:

- The volume each shipper is required to reduce is calculated as a ratio of their nomination/allocation differential divided by the sum of all shipper's nomination/allocation differentials in that cycle.
- Shippers must have a minimum batch to reduce; otherwise, their percentage of the nomination/allocation differential is redistributed to the total volume of nomination/allocation differentials for the specific cycle/segment/source.
- Shippers within these cycle/segment/sources will be notified by email regarding the volume required to reduce their nominations.

3) The maximum capacity allocated for jet fuel in Segment 2/3 will be 50,000 barrels to be scheduled for shipment during all cycles out of the Anacortes and Ferndale meters, during all months of the year. Carrier reserves the right to increase this amount to meet operational needs.

Please refer to the Available Space Policy: Section 6.E

If a shipper desires to ship jet fuel using the meter that they do not have a historical volume basis:

- ❑ The shipper must notify Olympic scheduling prior to the first day of the month for the nomination of their intent to nominate jet fuel for the next month. Example: Notify Olympic by March 31st, if they intend to nominate jet fuel for the month of May.
- ❑ Olympic will determine the amount of jet allocation for all shippers on the source meter using the total volume of Jet Fuel for each shipper to segment 3 and allocate that percentage to each shipper. Example: Shipper A shipped 100,000 barrels from Ferndale meter, total shipped by all jet fuel shippers was 500,000 barrels. Shipper A would be allocated 20% of the 250,000 barrels for the month, which would be 50,000 barrels

OLYMPIC PIPE LINE'S RIGHT OF REVIEW

OPLCo reserves the right to review all nominations and forecasts to ensure reasonableness. This includes, but is not limited to, contacting suppliers and recipients of the volumes nominated to be shipped. OPLCo reserves the right to adjust any nominations which are determined to be inflated or unreasonable.

TACOMA DELIVERY FACILITY STRIP-RATE LIMITS

- ❑ Tacoma nominations are not part of the proration calculations. Therefore, shippers do not use their allocation volumes toward Tacoma nominations.
- ❑ When carrier declares cycle/segment/sources as prorated prior to accepting nominations, shippers are not allowed to nominate over 22.0% of individual nominations.
- ❑ When carrier declares open nominations, shippers may nominate above the 22.0%. Carrier will determine each shipper's maximum volume to Tacoma if the total volume of all shippers stripping the same Operational Batch does not exceed 22.0%
- ❑ The volumes to Segment 3 in proration or in open nominations determine the available Tacoma volumes based on the 22.0% strip rate.
- ❑ The shipper with the highest percentage is reduced first, cascading down to the next highest shipper's percentage, continuing until the 22.0% per ABID is achieved.
- ❑ After Nominations have been accepted and closed, Shippers will not be allowed to increase their Tacoma scheduled volumes when the Tacoma percentage is at 22.0% for any given OBID.

SECTION 6.D

Reserved

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SECTION 6.E

AVAILABLE SPACE POLICY

Space that was not available at nomination time but becomes available during the scheduling period is called Available Space. This space may become available for several reasons - for example, batches that are cut or reduced or projected down time that was scheduled but not needed. Shippers who utilize available space will, over time, increase their historical allocation of space at nomination time.

The intent of the Available Space Policy is to give active shippers equal opportunity for access to available pipeline space by responding to the Olympic Pipeline Space email.

Available Space Offer opportunities that fall within the "48 Hour and Weekend/Holiday Late Change" (Section 6B) period will be accepted on a rare "exception" basis and only when the increase can be safely integrated with the current schedule.

AVAILABLE SPACE ALLOCATION PROCESS

Whenever space is available on the pipeline and there is more than twenty-four hours before a segment cycle begins at a refinery source meter, available GEQ volumes will be posted on the Transport 4 bulletin. Shipper may set up a "T4 push" to receive an email notification when the bulletin is updated. See Section 6.B for Gasoline Equivalent Factors)

The available space will be awarded to the first shipper(s) who respond via Transport 4 nomination entry AND notification by email to Olympics' Scheduling department. Carrier may also offer space to shippers based on their source/segment historical percentage.

Confirmations from the refineries or terminals are required to follow within three business hours of the original request.

Note: Once Available Space is accepted it becomes a batch just like any other batch, subject to all the rules and requirements of a normal batch.

AVAILABLE SPACE JET ALLOCATION PROCESS

The same rules as stated above will apply to jet allocations on Segment 2/3.

SECTION 6.F

RENTON CONTROL CENTER COMMUNICATIONS

Renton Control Center (RCC) is responsible for providing current line information to refinery, terminal and operations personnel. A complete understanding of the actual transaction to occur between the pipeline and refinery or terminal personnel is essential for safe and efficient operations.

RENTON CONTROL CENTER --REFINERY PERSONNEL

At least two hours before any tank is lifted from a refinery, an OPL Short Certificate of Analysis (COA) for the product with required test results, as per current Olympic Pipe Line Company specifications will be completed, authorized by shipper, and emailed to OPL where it can be reviewed by RCC or field personnel. There is one specification currently not on the COA, maximum observed line temperature is 120 degrees F due to operating equipment limitations.

- One hour before a batch is lifted from a refinery, RCC will provide an accurate tank lifting time. At this time RCC will also confirm the following information:
- Tank number(s) and type of product from which the pumping is to be made.
- Net available product in tank.
- Must be a minimum of 10,000 barrels for sampling.
- Verification that refinery manifold valves and tank valves are in the proper alignment.
- If this time changes by more than 5 minutes in the last hour, RCC will provide refinery personnel with an updated time.
- RCC will also notify the refinery upon completion of a lifting.

RENTON CONTROL CENTER -- TERMINAL PERSONNEL

- a. A complete understanding of the actual transaction to occur between the pipeline and terminal personnel is essential for safe and efficient operations. Use of Olympic's latest published schedule and confirmed changes to these schedules will be the basis for planning pipeline operations.
- b. RCC To Terminal Personnel
 - Several hours before a delivery is to be made into the terminal, RCC will verify the following information with terminal personnel:
 - Batch information.
 - The latest calculated time of batch arrival or startup.
 - Line-fill push-out flow rates.
 - Names or initials of terminal personnel.
 - RCC is responsible for notifying a terminal of any change affecting the terminal's operations. This may include but not limited to changes in arrival times from the current schedule, unusual characteristics of batch changes, head end and tail end interfaces, presence of high sulfur interface, scraper clouds, water etc.
 - RCC will also notify terminal personnel when the completion of batch change or delivery occurs.
- c. Terminal Personnel to RCC
 - At least one hour before a delivery is to be made into a terminal, RCC is to be furnished the following information from the terminal:
 - Total net barrel available room for product and interface delivery.
 - Notify Controller if an interface (push out) tank will be used on opening or closing a batch.
 - Verification that terminal manifold valves and tank valves are in the proper alignment.

- Approval must be given to operations personnel by receiving terminal personnel before delivery into a tank with less than 1 ft. of product above the tank's fill line or into a floating roof tank which has its roof resting on the legs. In this case the velocity shall not exceed 3 ft per second. See Section 5.99.1 for flow rates.
 - Terminal personnel are responsible for notification to the RCC prior to any terminal operation that could affect the pipeline operations (such as splitting the product stream into more than one tank, filling a tank from the pipeline to or above the "red line" fill height, repair of lines or valves during a pipeline receipt, tank changes, etc.)
 - Request notification of interface arrival, including presence of high sulfur interface.
 - Request estimated flow rate to aid in making tank changes when more than one tank is required.
 - Terminal personnel are responsible for all product line displacements, interface cuts and batch changes within the terminal and notification to RCC as soon as possible following tank changes with verification that product is flowing into the correct tank(s).
- d. Field Operations Personnel - Local Batch Changes
- Field Specialists scheduled to make a batch change will be on location one hour prior to the indicated batch change time.
 - Upon arrival, the field operations personnel are to report to the RCC and obtain all information that is necessary and pertinent to the event about to occur. They will be responsible for verifying the above information with the terminal personnel and updating the RCC as required.
 - Field Specialists will also notify the terminal upon completion of a batch change and retain all information regarding the change, reporting any batch change irregularities to the RCC.

Section 6.G

ACCOUNTING POLICIES

DAILY ACCOUNTING

Olympic accounting day is from midnight to midnight every day. Accounting is processed Monday - Friday (exception for holidays observed) with Friday, Saturday and Sunday being processed on Monday. Ticket processing is done the day following the actual product movement day per the schedule above. Accounting is normally done prior to 10:00 am Tuesday – Friday and noon on Monday. Questions and concerns relating to Accounting, can be sent to olympicpipelineaccounting@bp.com

CUSTODY TRANSFER TICKET DISTRIBUTION

Custody Transfer Tickets (PTD) are posted on Transport 4 (T4)

- ❑ For any assistance in navigating the Transport4 application, please reach out to the Customer Success Team at: INFO@TRANSPORT4.COM OR (888) 844-9404

END-OF-PERIOD ACCOUNTING-INVOICING

Accounting periods are from the 1st through the 15th of the month and from the 16th through the end of the month. Shipper inventory and invoices are usually issued one or two business days following the last day of the accounting period.

Inventories and invoices are posted on Transport 4 (T4)

Tank Volume Discrepancies vs. Ticketed Volumes

Olympic customers will have five (5) calendar days to submit a volume discrepancy to Olympic Pipe Line Company. (Tank volume vs. Olympic ticketed volume) Concerns should be reported to Olympic Pipe Line Accounting by email.

OlympicPipelineAccounting@bp.com

OVER/SHORT SETTLEMENT PRICING

Olympic uses the fuel pricing publishers PNW OPIS Mid Spot Prices and PLATTS Bunkerwire Prices for each End-of-Billing Period, barrel settlement pricing.

The procedure for End of Period settlements are as follows:

Pricing is based on the average daily price for the given month (less week-ends and pricing publishers holiday schedule), for each product that we ship.

Products using the OPIS Mid Spot prices are:

- ❑ Unleaded Premium (including Sub-octane) (Pxx)
- ❑ Unleaded Regular (including Sub-octane) (Rxx)
- ❑ Jet/Kerosene (J94, J84)
- ❑ #2 Ultra-Low Sulfur Diesel (D85)

Product using the PLATTS Bunkerwire price is:

- DMA Marine Gasoil (D70)

Calculation for settlement pricing for every product is: (OPIS average daily price per gallon) X 42 gallons per barrel = Price per barrel for settlement rate.

Example: (\$1.61807 gallon) X 42 = \$67.96 per barrel.

INVOICE PAYMENT TERMS

Pursuant to Tariff Rule 13(b); Transportation invoices are due upon receipt. If the invoices are not paid within fifteen (15) days from the date of the invoice, they will bear interest from the last day of the invoice period, at the monthly rate of one percent (1%); and an overdue notice will be sent to the Shipper via email. When an invoice is overdue by 30-45 days overdue, another notice will be sent out followed by a telephone call to the Shipper's accounting department supervisor.

RIGHT TO SEIZE BARRELS TO RECOVER OUTSTANDING DEBT

Pursuant to Tariff Rule 13(b); Olympic shall have a lien on all barrels tendered to it for shipment by shipper to pay transportation charges, including demurrage charges. If a shipper refuses to pay an outstanding debt, Olympic Pipe Line Co. has the right, subject to the provisions of the tariff rule to enforce its lien.

SECTION 6.H

THIRD PARTY TICKET DISTRIBUTION POLICY

As of September 30, 2009, Olympic will no longer issue Third Party Tickets. The reasoning for this is twofold:

- ❑ It has been a significant time since a third-party ticket has been requested. As such, Olympic no longer feels this is valued service to our customers.
- ❑ The shipper of record should supply any requested information to the third party with whom they are contracting service or selling product.

SECTION 6.I

SHIPPER QUALIFICATIONS

Olympic Pipe Line Company LLC (OPLCo) is a common carrier. Companies that wish to ship product on Olympic Pipe Line must complete a New Shipper Application (*See below for sample*). This application can be requested from:

Olympic Pipe Line Company LLC
Attn: Products Movement
2319 Lind Ave SW
Renton, WA 98057

Or by email: OlympicPipelineScheduling@bp.com

Olympic Pipe Line reserves the right to qualify an applicant to be a shipper on the pipeline. Once an application is submitted by a potential shipper it will be reviewed by Olympic Pipe Line. Olympic retains the sole discretion to approve/disapprove new shippers. Olympic will reply in writing to the application within 60 days after a complete application has been submitted.

The qualifications to become a shipper include, but may not be limited to the following:

- Credit information in the form of trade and banking references
- Financial statements for the last three years
- Dun & Bradstreet rating (if available)
- Yearly volume forecast by grade of product, indicating both origin and destination
- Completion of a "Customer Contact Sheet"
- The technical capability to communicate with Olympic Pipe Line using the current systems provided. This includes email communication and the ability to run standard Microsoft office programs.

SPACE ALLOCATION FOR A NEW SHIPPER

There are times when Olympic Pipe Line is in a prorated state. This means a new shipper may not be able to move all the products desired. Once a shipper has been accepted onto the line the shipper is subject to all of the provisions of all of Olympic Pipe Lines Policies.

In regards to the space available to a shipper the Proration Policy will apply. A new shipper will be attributed a historical volume of 50,000 GEQ barrels in each month for the prior year. This will have the affect of allocating to a shipper space on the line in accordance with the proration policy. This does not guarantee that a shipper will get 50,000 GEQ barrels of space in a given month.

A shipper can increase their allocation by taking advantage of the provisions in the Free Space policy.

GENERAL REQUIREMENT OF SHIPPERS ON PRORATED PIPELINES

New Shipper's request for space allocation for shipments through a prorated segment of the system will be denied to any "subsidiary" of a shipper, i.e., a New Shipper which is wholly owned or under the control of a Regular Shipper or parent of a Regular Shipper.

OPLCo will not knowingly allow an allocation granted to a New Shipper to be used in such a manner that will enhance the allocation of another shipper. Therefore, OPLCo may require written assurances from Regular Shippers that would be providing facilities or products for the New Shippers movements, stating that no enhancement of its allocation will result. Such statement shall read as follows:

"This is to certify to Olympic Pipe Line Company that our dealings with (Prospective Shipper) with respect to supply of petroleum products or use of our facilities for ingress to or egress from OPLCo's system will not enhance our prorated space allocation on the OPLCo system. We would not have in the future, and have not in the past, shipped these or equivalent volumes over OPLCo under our prorated allocation, nor have we used such volumes as a basis for our proration allocation."

OPLCo may require existing or prospective shippers to confirm that such shipper has not done and will not do, through its dealings with other shippers, anything that will circumvent this policy.

In no event shall shippers utilize their allocated space by making it available to other shippers by any device, scheme or arrangement. OPLCo will guard against attempts by shippers to unfairly obtain additional pipeline allocations. Should OPLCo become aware of and confirm any violation of this requirement, the shippers involved will each receive reduced allocations in a future prorated period following discovery of the violations, each to the extent of the space improperly used.

All tenders shall be subject to tariff terms and conditions of the Rules and Regulations as identified in the applicable interstate and intrastate tariffs in effect.

New Shipper Package

(Introduction letter)

Interested Shipper on the Olympic Pipe Line System:

Thank you for your interest in becoming a shipper on the Olympic Pipe Line.

The pipeline began operations in September 1965. Currently, BP and ArcLight are the owners of the pipeline. BP became the operator of the pipeline in July 2000 and currently remains the operator.

Olympic is a common carrier pipeline servicing the four refineries in NW Washington. There are two parallel lines (20" and 16") that run from Allen station to Renton, where the 20" connects to a 14", which continues to Portland, Oregon. The pipeline services terminals located in Renton, Seattle, Sea-Tac, Tacoma, Vancouver, Linnton and Portland.

Enclosed in this package you will find an application and acceptance of requirements. Please complete and return these forms along with the appropriate financial statements so we can complete the review of your application.

We look forward to working with you.

Sincerely,

Product Movement Department
Olympic Pipe Line Company LLC

New Shipper Application

Corporation Information

Corporate Name

Company Address:

Contact:

Phone:

Fax:

Email:

Shipper Name: (shipper name if different from owner company)

Company Address:

Contact:

Phone:

Fax:

Email:

Financial Information

Duns Number:

Banking Information:

Attach last three years of fiscal year end financial statements:

Expected/Proposed Product Movements: (Includes Refinery, Destination terminal, product and volume)

Customer Contact Form

New Shipper acceptance of Requirements:

I, _____, as a representative of _____
have read and understand the qualifications of becoming a new shipper on the Olympic Pipe
Line.

(Name)

(Company)

(Date)

SECTION 6.J

TRANSFER OF SHIPPER ASSETS

The transfer of historical volumes between shippers will be allowed under the conditions outlined below. If these conditions are not met, Olympics' "new shipper" policy as specified in Olympics' rules and regulations tariff will apply. The transferee company needs to meet all of the qualifications of a new shipper as specified in Section 6.I.

Conditions:

- ☐ Sale of hard assets from an existing shipper to a new owner – e.g., refinery sale, company sale, or merger.

Name change:

Transferor:

I, _____, as a representative of _____ hereby authorize the transfer (all/ _____ barrels of) historical space on the Olympic Pipe Line to _____ effective _____

(Name):

(Company):

(Date):

The above form must be completed and returned to:

Olympic Pipe Line Company LLC
Attn: Products Movement
2319 Lind Ave SW
Renton, WA 98057

Or email to OLYMPICPIPELINESCHEDULING@bp.com
Subject Line: Attention Transfer of Shipper Assets

SECTION 6.K
NEW CUSTOMER CONTACT FORM

Date: _____

Customer Name:

Primary Contact

General Primary Contact if cannot reach a specific person:

Contact Name: _____

Department: _____

Address: _____

Phone: _____ Fax: _____ Cell/Pager: _____

Email Address: _____

President

Name: _____

Address: _____

Phone: _____

Fax: _____

Email Address: _____

Financial Officer

Name: _____

Address: _____

Phone: _____

Fax: _____

Email Address: _____

Legal Affairs

Contact Name: _____

Company (if outside firm): _____

Address: _____

Phone: _____

Fax: _____

Email Address: _____

Quality Assurance

Product Quality and Ballots

Contact Name: _____

Department: _____

Address: _____

Phone: _____

Fax: _____

Email Address: _____

Revenue Accounting

Pipeline Invoices for transportation services, overages and shortages, service fees.

Contact Name: _____

Department: _____

Address: _____

Phone: _____

Fax: _____

Email Address: _____

Backup Name: _____

Phone: _____

Fax: _____

Email: _____

Tax ID No. _____

Contact Information

Accounts Payable (A/P) Contact (s) – Please include A/P Manager or Supervisor:

Name: _____

Phone: _____

Fax: _____

Email Address: _____

Product Movements

Pipeline Scheduler/Nominations:

Name: _____

Department: _____

Address: _____

Phone: _____ Fax: _____ Cell/Pager: _____

After Hours No.: _____

Email Address: _____ Cell: _____

Backup: _____

Email Address: _____ Phone: _____

SECTION 6.L

SCHEDULING/ACCOUNTING CONTACT CHANGE FORM

Only fill out the Old and New applicable section and return to either:

OLYMPIC PIPELINE SCHEDULING: OlympicPipelineScheduling@bp.com

or OLYMPIC PIPELINE ACCOUNTING: OlympicPipelineAccounting@bp.com

Date: _____

Shipper Name:

Daily Ticket Accounting OLD (Person being replaced)

Name: _____

Phone: _____

Email Address: _____

Fax: _____

Daily Ticket Accounting NEW

Name: _____

Phone: _____

Email Address: _____

Fax: _____

Accounts Payable OLD (Person being replaced)

Pipeline Invoices for transportation services, overages and shortages, service fees.

Accounts Payable (A/P) Contact (s) – Please include A/P Manager or Supervisor:

Contact Name: _____

Department: _____

Address: _____

Phone: _____

Email Address: _____

Location: _____

Fax: _____

Accounts Payable NEW

Pipeline Invoices for transportation services, overages and shortages, service fees.

Accounts Payable (A/P) Contact (s) – Please include A/P Manager or Supervisor:

Contact Name: _____

Department: _____

Email Address: _____

Location: _____

Address: _____

Phone: _____

Fax: _____

Product Movements OLD (Person being replaced)

Pipeline Scheduler:

Name: _____

Department: _____

Address: _____

Phone: _____ Fax: _____ Cell/Pager: _____

After Hours No.: _____

Email Address: _____ Cell: _____

Backup: _____

Email Address: _____ Phone: _____

Product Movements NEW

Pipeline Scheduler:

Name: _____

Department: _____

Address: _____

Phone: _____ Fax: _____ Cell/Pager: _____

After Hours No.: _____

Email Address: _____ Cell: _____

Backup: _____

Email Address: _____ Phone: _____