

Colonial Pipeline Company

Section 4 Quality Assurance

Colonial Pipeline Company

BASIC REQUIREMENTS

This section provides basic product specification information for scheduling on Colonial's pipeline system.

Fungible Batches

A "fungible batch" is defined as a batch of petroleum product meeting carrier's established specifications, which may be commingled with other quantities of petroleum product meeting the same specifications.

Fungible product specifications are established based on industry standards, federal and state requirements, and Colonial's ability to handle various products. Fungible products provide shippers with a significant degree of flexibility for scheduling lifting and delivery times.

Segregated Batches

A "segregated batch" is defined as a batch of petroleum product meeting carrier's established specifications, which may not be commingled with other quantities. A batch may be segregated because it has properties that differ from the fungible specifications.

All products must meet tariff and product specification requirements. Colonial has set tariff requirements to meet the physical constraints of the system. The tariff product requirements are:
Be free from water or other impurities.

Have a color less than No. 3 ASTM.

Have a vapor pressure of not more than 15 pounds absolute at 100 degrees Fahrenheit.

Have an API gravity of more than 25 degrees or less than 80 degrees at 60 degrees Fahrenheit.

Have a viscosity of less than 4.3 centistoke at 100 degrees Fahrenheit.

Distillates must have a temperature of less than 110 degrees Fahrenheit.

Gasoline must have a temperature of less than 100 degrees Fahrenheit.

Be capable of absorbing a blend of at least 5% of other like gasolines or distillates, unless the shipper accepts any increase in interface mixture.

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BASIC REQUIREMENTS

Product specification requirements allow for the proper sequencing of the batch to minimize interface mixing with incompatible products.

Special Products

Quality Assurance assists shippers in transporting special batches through Colonial's system. With advance planning before shipment and monitoring of these batches through the system, Colonial is able to handle many different types of refined petroleum products. Requests for shipment of special products must meet Colonial's minimum batch size requirements.

Handling Procedures

Colonial's handling procedures are developed by focusing on the physical limits of the system; such as interface sizes, valve travel times, product compatibility with system materials, Colonial tankage, and pipeline operations. Sequencing and "cutting" procedures are controlled to maintain the quality of product through Colonial's system.

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SEASONAL REQUIREMENTS

GASOLINE

REID VAPOR PRESSURE/VOLATILITY

The tables on the following pages summarize the schedule for movements of each fungible product on Colonial. Movement of certain product grades during seasonal transitions will be controlled based on volumes and available tank capacity as noted in the Tables. Movements of product grades outside the designated cycles will be addressed individually. Bulletins will be posted to communicate any changes to this schedule.

DISTILLATES

DIESEL FUEL CLOUD AND POUR POINT

Due to the operating requirements of the diesel fuels in the winter months, the pour point and cloud point have been set to meet seasonal conditions. The seasonal requirement will be effective in the cycle of the fungible product lifting from Houston on the following dates.

SUMMER REQUIREMENT

March 15

WINTER REQUIREMENT

August 1

2010 Origin RVP Transition Calendar
Seasonal Requirements

Grades			Cycle (The calendar has been condensed and some cycles aren't shown, but they are not dropped.)																																							
Letter	Code	RVP	1	6	7	11	12	13	14	15	16	17	18	19	20	21	23	24	25	31	37	43	48	49	50	51	52	53	55	56	59	60	61	62	63	67	72					
F	1	Region 1									x	x	x	x	x	x	x	x	x	x	x	x																				
	3	11.5								x														x	x	x	x	x														
	4	13.5	x	x	x	x	x	x	x															x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			
	5	15.0	x	x																																	x	x	x	x	x	x
H	1	Region 1									x	x	x	x	x	x	x	x	x	x	x	x																				
	3	11.5								x														x	x	x	x	x														
	4	13.5	x	x	x	x	x	x																x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
	5	15.0	x	x																																		x	x	x	x	x
A & M	1	7.8													x	x	x	x	x	x	x	x	x	x	x	x																
	2	9.0									x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x																
	3	11.5							x	x	x	x	x											x	x	x	x	x	x	x	x	x	x									
	4	13.5	x	x	x	x	x	x	x																																	
	5	15.0	x	x	x	x	x																																			
D & V	1	7.8													x	x	x	x	x	x	x	x	x	x	x	x																
	2	9.0									x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x																
	3	11.5							x	x	x	x	x											x	x	x	x	x	x	x	x	x										
	4	13.5	x	x	x	x	x	x																																		
	5	15.0	x	x	x	x	x																																			
S	0	7.0																					x	x	x	x	x	x														
	2	9.0																																								
	3	11.5									x	x	x	x	x																											
	4	13.5	x	x	x	x	x	x																																		
T	0	7.0																																								
	2	9.0																																								
	3	11.5									x		x																													
	4	13.5	x		x	x																																				

Footnotes

- Gasoline movements from Houston to origination to TEPPCO delivery outside expected gasoline movements will be handled on a case by case basis as determined by Colonial Pipeline's scheduling department.
- Delivery of certain products may be limited by facility based on tank availability.
- T grades only move on odd cycle numbers
- A and M grades on cycle 13 may be commingled due to tankage constraints at certain tank farm locations.

x	Shipment allowed
	Grade not allowed
x	VOC reduction of -28.0% at Origin

Seasonal Requirements
2010 RVP Transition Calendar

Tank Farm Allowed		Cycle (The calendar has been condensed and some cycles aren't shown, but they are not dropped.)																																																																							
Grade	RVP	1	6	7	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	31	37	43	48	49	50	51	52	53	54	55	57	60	61	62	63	67	72																																				
		Pelham		[Grid content for Pelham tank farm]																																																																					
Atlanta		[Grid content for Atlanta tank farm]																																																																							
Belton		[Grid content for Belton tank farm]																																																																							
Spartanburg		[Grid content for Spartanburg tank farm]																																																																							
Charlotte		[Grid content for Charlotte tank farm]																																																																							

Footnotes

1. Delivery of certain products may be limited by facility based on tank availability.
2. Aberdeen and Pennsauken grades are based on negotiations with customer at that facility.
3. Bengal Pipeline's Baton Rouge facility and Collins Tank Farm are not covered by this table.
4. T grades only move on odd cycles
5. A and M grades on cycle 13 may be commingled due to tankage constraints at certain tank farm locations.

X	Shipment allowed
■	Grade not allowed
X	Product destined for Tennessee is allowed

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TESTING INFORMATION

Pre-shipment Requirements and Batch Testing After Lifting

Colonial requires a full analysis of every batch nominated for shipment. The full analysis must be received within 12 hours of the completion of the batch lifting into the pipeline.

A pre-shipment transfer document must be furnished to Colonial's lifting facilities 2 hours prior to shipment to assure compliance with Colonial's product specifications if the full analysis is not available at that time. The following test results must be supplied on the preshipment transfer document:

Gasoline

- | | |
|---|--|
| A) Colonial Batch Code | J) Aromatics (vol%) – VOC-controlled RFG only |
| B) Supplier tank number for product lifting | K) E200 (vol%) – VOC-controlled RFG only |
| C) Gravity (API@ 60 F) | L) E300 (vol%) – VOC-controlled RFG only |
| D) Distillation @ 10%, 50%, 90%, End Point | M) Olefins (vol%) – VOC-controlled RFG only |
| E) Octane (Research, Motor, and R+M/2) | N) Sulfur (wt%) – All grades |
| F) Oxygen (wt.%) All Grades | O) MTBE content (vol%)- All grades |
| G) RVP (psi) | P) VOC Reduction (%) – VOC-controlled RFG only |
| H) Benzene (vol.%) | |
| I) Driveability Index | |

Diesel Fuel/Fuel Oil

- | | |
|---|--|
| A) Colonial Batch Code | G) Dye (ptb of solid standard Red 26) High sulfur only |
| B) Supplier tank number for product lifting | H) Cetane Index |
| C) Gravity (API@ 60 F) | |
| D) Distillation @ 10%, 50%, 90%, End Point | |
| E) Flash Point | |
| F) Sulfur (wt.%) | |

Kerosine

- A) Colonial Batch Code
- B) Supplier tank number for product lifting
- C) Full analysis per Colonial product specification

Originating Locations

Houston/Pasadena
Hebert/Port Arthur/Beaumont
Lake Charles
Baton Rouge
Moundville
Collins
Woodbury
Linden

Facsimile Number

(713)477-8480
(409)722-3986
(337)882-1526
(225)654-7671
(205)371-2244
(601)765-6868
(856) 845-1553
(732)636-3385

Phone Number

(713)473-5954
(409)722-4054
(337)882-1526
(225)570-3030
(205)371-2233
(601)765-4434
(856)202-8040
(732) 734-2031

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TESTING INFORMATION

Colonial samples all tanks prior to lifting to verify the product in tankage corresponds to the Pre-shipment Transfer Document and meets the following Colonial product specifications:

	<u>Gasolines</u>	<u>Fuel Oil</u>	<u>Kerosine</u>
Gravity	X	X	X
Water	X	X	X
Haze	X	X	X
Color	X	X	X
Benzene	X		
Vapor Pressure	X		
Oxygen Content	X		
Red Dye		X	X
Sulfur	X	X	X
Flash		X	X
Conductivity		X	X
MSEP			X

Colonial randomly tests all products for various product specifications not included in the above table.

During lifting and deliveries through Colonial's system, the tests listed above are conducted to verify that the product meets Colonial's specifications before delivery to the shipper.