

QUALITY ASSURANCE - GENERAL INFORMATION

Plantation transports products with quality controls subject to all requirements of our current FERC Tariff, and in particular, Item 10 of our current tariff.

Products transported within a cycle in either a segregated or fungible manner are sequenced within similar grades and specifications. Plantation requires 25,000 barrel and 15,000 barrel minimum batch sizes for segregated and fungible movements, respectively, to maintain product specifications of any given product. Plantation maintains the identity of all batches transported; however, Plantation must reserve the right to over or under deliver batches resulting from products requiring extraordinary protection, such as reformulated gasolines, low sulfur diesel fuels and aviation grade fuels. These products are scheduled in such a position to allow handling of tank bottoms, leading and trailing interfaces, and to minimize downgrading to lower grade products.

Petroleum products which contain non-hydrocarbon blending components are not acceptable for transportation without prior notification and acceptance by Plantation Pipe Line Company. Plantation will not allow the movement of any petroleum products containing methanol, tertiary butyl alcohol, or ethanol. However, the use of aliphatic ethers (e.g., methyl tertiary butyl ether (MTBE) and/or tertiary amyl methyl ether (TAME), in gasolines is allowed, provided that the following requirements are met:

- The customer must provide a laboratory report, which indicates the name(s) of the aliphatic ether(s) and the total actual concentration of each aliphatic ether in the gasoline, prior to receipt into the Plantation system. Refer to the subheading entitled Communications, in Section III of this document for a list of methods for transmitting the laboratory reports.
- The total maximum concentration of aliphatic ether shall not exceed 2.7 wt. % oxygen.
- Meet all applicable local, state, and federal regulations concerning gasolines containing aliphatic ethers.

The specifications of segregated batches received by Plantation must conform to standards of current ASTM specifications and applicable governmental authority at the scheduled destination. Product specifications for fungible movements are outlined in Section III of this booklet under the subheading, *Fungible Product Specifications*. In addition to the above specifications, Plantation has handling requirements necessary to provide tolerances in certain critical quality control areas. These handling requirements for segregated products are outlined in Section III of this booklet under the subheading, *Segregated Product Specifications*.

EPA VOLATILITY REGULATIONS

During the EPA volatility control period of May 1 through September 15 of each year, all customers shall provide to Plantation, for each gasoline movement, a laboratory report that states the actual Reid Vapor Pressure (RVP) test result, before receipt into the Plantation system. This laboratory report must certify that the movement meets all applicable ASTM specifications and governmental regulations, including, but not limited to, the regulations in 40 CFR §§ 80.27-28. Include Plantation's batch code as part of the laboratory report to identify the gasoline. Submit these laboratory reports to the Operations Control Department through one of the methods referred to in subheading *Communications* in Section III of this booklet.

During the EPA volatility control period, Plantation conducts an oversight sampling and testing program for RVP, in which all movements of gasoline are tested. Test analyzers are located at Baton Rouge, Louisiana; Collins, Mississippi; Helena, Alabama; Bremen, Georgia; Greensboro, North Carolina; and Newington, Virginia. Initial test results are based on pipeline spot samples only. Any test result exceeding the applicable volatility standard will instigate additional sampling and testing of the movement, including additional pipeline spot samples, and composite tank samples. Any gasoline movement exceeding the applicable volatility standard, by Plantation's RVP analysis, will be designated as non-compliant gasoline, according to EPA volatility regulations published in 40 CFR §§ 80.27-28, and as such, is not intended for motor vehicle use during the volatility control period without subsequent modification (e.g., blending). The Operations Control Center will notify the customer scheduler that the movement has been designated as non-compliant gasoline.

Plantation provides to its customers limited information about Reid vapor pressure on certain custody transfer tickets. This information is provided as a service to Plantation's customers and to fulfill the documentation requirements of the EPA volatility regulations. This information is provided only during the EPA volatility control period of May 1 through September 15 of each year.

Plantation's RVP test results are typically based on spot samples, and may not be representative of the actual RVP of the entire gasoline movement. These analyses are performed with Grabner vapor pressure analyzers, in accordance with ASTM D 5191 and during the VOC control period in accordance with 40 CFR, Part 80, Appendix E, Method 3. These instruments are routinely calibrated with certified standards (2,2-dimethylbutane and 2-methylpentane). To insure accuracy, Plantation has conducted correlation studies with several laboratories.

REID VAPOR PRESSURE CHART

State	January	February	March	April
Louisiana	13.5	13.5	13.5/11.5	11.5/9.0
Mississippi	13.5	13.5	13.5/11.5	11.5/9.0
Alabama	13.5	13.5	13.5/11.5	11.5/9.0
Georgia	13.5	13.5	13.5/11.5	11.5/9.0
Tennessee	15.0/13.5	13.5	13.5	13.5/9.0
South Carolina	13.5	13.5	13.5	13.5/9.0
North Carolina	15.0/13.5	13.5	13.5	13.5/9.0
Virginia	15.0	15.0/13.5	13.5	13.5/9.0
District of Columbia	15.0	15.0/13.5	13.5	13.5/9.0
Maryland	15.0	15.0	15.0/13.5	13.5/9.0

REID VAPOR PRESSURE CHART

(continued)

State	VOC Control Period				
	May	June	July	August	Sept. 1-15
Louisiana	9.0	9.0	9.0	9.0	9.0
Mississippi	9.0	9.0	9.0	9.0	9.0
Alabama					
Ozone Attainment Areas	9.0	9.0	9.0	9.0	9.0
Ozone Non-Attainment Areas	9.0	7.0	7.0	7.0	7.0
	9.0	OR VOC Controlled RFG - Region 1			
Georgia					
Ozone Attainment Areas	9.0	9.0	9.0	9.0	9.0
Ozone Non-Attainment Areas	9.0	7.0	7.0	7.0	7.0
Tennessee	9.0	9.0	9.0	9.0	9.0
South Carolina					
Ozone Attainment Areas	9.0	9.0	9.0	9.0	9.0
Ozone Non-Attainment Areas	9.0	7.8	7.8	7.8	7.8
North Carolina					
Ozone Attainment Areas	9.0	9.0	9.0	9.0	9.0
Ozone Non-Attainment Areas	9.0	7.8	7.8	7.8	7.8
Virginia					
Ozone Attainment Areas	9.0	9.0	9.0	9.0	9.0
Ozone Non-Attainment Areas	VOC Controlled RFG - Region 1				
District of Columbia	VOC Controlled RFG - Region 1				
Maryland					
Ozone Attainment Areas	9.0	9.0	9.0	9.0	9.0
Ozone Non-Attainment Areas	VOC Controlled RFG - Region 1				

State	Sept. 16-30	October	November	December
Louisiana	9.0/11.5	11.5	11.5/13.5	13.5
Mississippi	9.0/11.5	11.5	11.5/13.5	13.5
Alabama	9.0/11.5	11.5	11.5/13.5	13.5
Georgia	9.0/11.5	11.5	11.5/13.5	13.5
Tennessee	9.0/11.5	11.5/13.5	13.5	13.5/15.0
South Carolina	9.0/11.5	11.5/13.5	13.5	13.5
North Carolina	9.0/11.5	11.5/13.5	13.5	13.5/15.0
Virginia	9.0/11.5	13.5	15.0	15.0
District of Columbia	9.0/11.5	11.5/13.5	13.5/15.0	15.0
Maryland	9.0/11.5	11.5/13.5	13.5/15.0	15.0

OZONE NON-ATTAINMENT AREAS ON THE PLANTATION SYSTEM

Location	Maximum RVP				
	May	June	July	August	Sept. 1-15
Alabama <i>Birmingham Area – Jefferson & Shelby Counties</i>	9.0	7.0 low sulfur	7.0 low sulfur	7.0 low sulfur	7.0 low sulfur
	or VOC Controlled RFG – Region 1				
District Of Columbia <i>Entire Area</i>	VOC Controlled RFG – Region 1				
Georgia <i>Atlanta Area (45 counties) – Banks, Barrow, Bartow, Butts, Carroll, Chattooga, Cherokee, Clarke, Clayton, Cobb, Coweta, Dawson, DeKalb, Douglas, Fayette, Floyd, Forsyth, Fulton, Gordon, Gwinnett, Hall, Haralson, Heard, Henry, Jackson, Jasper, Jones, Lamar, Lumpkin, Madison, Meriwether, Monroe, Morgan, Newton, Oconee, Paulding, Pickens, Pike, Polk, Putnam, Rockdale, Spalding, Troup, Upson, & Walton Counties</i>	9.0	7.0 low sulfur	7.0 low sulfur	7.0 low sulfur	7.0 low sulfur
Maryland <i>Baltimore Area - Anne Arundel, Baltimore, Carroll, Hartford, & Howard Counties, City of Baltimore</i> <i>Washington, DC Area - Calvert, Charles, Frederick, Montgomery & Prince George's Counties</i>	7.8	7.8	7.8	7.8	7.8
North Carolina <i>Charlotte Area - Gaston & Mecklenburg Counties</i> <i>Greensboro-Winston-High Point Area - Davidson, Davie, Forsyth & Guilford Counties</i> <i>Raleigh-Durham Area - Durham, Granville, & Wake Counties, Dutchville Township</i>	9.0	7.8	7.8	7.8	7.8
South Carolina <i>Spartanburg Area - Cherokee County</i>	9.0	7.8	7.8	7.8	7.8
Virginia <i>Richmond Area - Charles City, Chesterfield, Hanover, & Henrico Counties, Colonial Heights, Hopewell, & Richmond</i> <i>Washington Area</i> <i>Fairfax, Loudon, Prince William & Stafford Counties, Alexandria, Fairfax, Falls Church, Manassas, Manassas Park, Arlington</i>	VOC Controlled RFG – Region 1				

Note: All other locations on the Plantation system are classified as Ozone Attainment areas.

LOW SULFUR DIESEL FUEL REQUIREMENTS

All customers shall provide to Plantation, for each low sulfur diesel fuel movement, a laboratory report that states the test results for total sulfur in weight percent, by ASTM D1266, D2622 or D4294, and cetane index, by ASTM D976, before receipt into the Plantation system. This laboratory report must certify that the movement meets all applicable ASTM specifications and governmental regulations, including, but not limited to, the regulations in 40 CFR Part 80. The sulfur content for any fungible low sulfur diesel fuel batch entering the Plantation system shall not exceed 0.047 wt. %. Include Plantation's batch code as part of the laboratory report to identify the low sulfur diesel fuel. Submit these laboratory reports to the Operations Control Department through one of the methods referred to in subheading *Communications* in Section III of this booklet.

Plantation conducts an oversight sampling and testing program, in which all movements of low sulfur diesel fuel are tested. Test results are based on pipeline composite samples. Any test result exceeding the applicable standard will instigate additional sampling and testing of the movement, including additional pipeline samples, and composite tank samples. Any low sulfur diesel fuel batch exceeding the applicable standard, by Plantation's analysis, will be designated as non-compliant, according to EPA regulations published in 40 CFR Part 80, and as such, not intended for highway use. The Operations Control Department will notify the customer scheduler that the movement has been designated as non-compliant.

REFORMULATED GASOLINE MONITORING PROGRAM

Scope

This section defines guidelines and policies comprising Plantation Pipe Line Company's Reformulated Gasoline (RFG) Monitoring Program. The purpose of the RFG Monitoring Program is to comply with EPA RFG Regulations, to detect non-compliant RFG entering the Plantation system, to ensure that RFG remains compliant while in-transit on the Plantation system, and as a defense mechanism against potential enforcement action from the EPA, or claims from customers of adulteration. The program consists of an oversight sampling and testing program, certain customer requirements, and the reporting of certain RFG information to the customer.

Referenced Documents

ASTM Standard D4420-94 Standard Test Method for Determination of Aromatics in Finished Gasoline by Gas Chromatography

ASTM Standard D4815-94a Standard Test Method for Determination of MTBE, ETBE, TAME, DIPE, *tertiary*-Amyl Alcohol and C₁ to C₄ Alcohols in Gasoline by Gas Chromatography

ASTM Standard D5191-93a Standard Test Method for Vapor Pressure of Petroleum Products (Mini Method)

Federal Regulations contained in 40 CFR § 80.40 - 80.135 (referred to in this document as EPA RFG Regulations)

Federal Regulations contained in 40 CFR § 80.27 - 80.28 (referred to in this document as EPA

Volatility Regulations)

The following Plantation Pipe Line Company internal documents:

- Reid Vapor Pressure Field Instrument Calibration Procedures
- Reid Vapor Pressure Monitoring Program
- Reid Vapor Pressure Field Instrument Testing Procedures
- Oxygen & Benzene Field Instrument Calibration Procedures
- Oxygen & Benzene Field Instrument Testing Procedures

Reformulated Gasoline Testing Summary

Plantation field personnel test for Reid vapor pressure (RVP), oxygen content, and benzene content on movements of RFG on the Plantation system. Upon request from a customer, Plantation will provide the results of its testing program on movements for that customer.

Plantation uses five Grabner Reid Vapor Pressure Analyzers to test for Reid vapor pressure at Baton Rouge, Louisiana, Collins, Mississippi, Helena, Alabama, Bremen, Georgia and Greensboro, North Carolina. Testing is conducted in accordance with ASTM D 5191 and during the VOC control period in accordance with 40 CFR, Part 80, Appendix E, Method 3. The RVP Test instruments are calibrated in accordance with Plantation Pipe Line Company's Reid Vapor Pressure Field Instrument Calibration Procedures.

Aromatics, benzene, olefins, oxygen content and oxygenate type(s) are determined with a HP 5890 Series II Gas Chromatograph (HP / AC Reformulyzer) and HP 7673 auto sampler located in Plantation's Bremen laboratory. Testing is conducted in accordance with ASTM D 4420 and D 4815. Composite samples from origin locations of every RFG receipt and other selected samples from other locations are shipped to the Bremen laboratory for analysis. The locations include Baton Rouge, Louisiana, Collins, Mississippi, Helena, Alabama, Bremen, Georgia, Greensboro, North Carolina and Newington, Virginia. Additional testing for benzene and oxygen is performed on site at Baton Rouge, Collins and Greensboro tank farms with Petrospec GS1000 Multi-Function Analyzers.

Plantation participates in correlation studies with other companies, laboratories, and the EPA for oxygen content, benzene content and Reid vapor pressure.

For additional information on sampling and testing, see the Section, *Instructions for Sampling and Testing of RFG*.

Customer Requirements

Customers shall provide to Plantation for each gasoline movement a laboratory report (e.g., certificate of analysis) that contains at least the following information:

Benzene content	vol. %
Gravity	API@60°F
Distillation (10%, 50%, 90%, End Point)	°F
Octane {(R+M)/2}	
Oxygen content	wt. %
Reid vapor pressure (RVP)	psi

A document should be submitted for every movement of conventional, RFG, and RBOB, and may contain additional laboratory test results. Include Plantation's batch code on the laboratory report for purposes of identification. These laboratory reports should be submitted to the Quality Control Engineer, Operations Control Department by facsimile, telex, mail or other electronic means through one of the following:

FAX:	(770) 751-4068
U. S. Mail:	Plantation Pipe Line Company 1435 Windward Concourse Alpharetta, GA 30005
E-mail	LabDocs@plantation-ppl.com

The laboratory report should be received within the following time periods:

- Baton Rouge Origins - within 24 hours upon initial receipt of movement into the Baton Rouge tank farm
- Collins Origins - prior to the initial receipt of the movement into pipeline system
- Pascagoula Origin - within 24 hours upon initial receipt of movement into pipeline system

Product Transfer Documents

Plantation shall use its delivery ticket with product code to satisfy the requirements for product transfer documentation, since Plantation's product code reflects all the information required in Sections § 80.77 for reformulated gasoline and RBOB and § 80.106 for conventional gasoline.

Plantation considers custody transfer tickets from other connecting carriers acceptable to meet product transfer documentation requirements; provided that we have reference documents available to understand all codes on the custody transfer tickets.

Product Specifications

Listed below are product specifications that a customer's RFG movement shall comply with, in order to transport on the Plantation system.

RFG Test Parameters on the Plantation System			
Property	Units	Minimum	Maximum
Aromatics	vol. %		50
Benzene	vol. %		1.30
E200	%	30	70
E300	%	70	100
Emissions Performance Reductions VOC Control Region 1 Cycles 17 through 23 Cycles 24 through 48	% % %	Origin 28.0 Origin 27.0 Delivery 25.0	
Gravity	API @ 60°F		Report
Olefins	vol. %		25
Oxygenates	wt. %		Not allowed
Oxygen content	wt. %		0.1
Reid vapor pressure	psi	- -	⁽¹⁾
Sulfur	ppm		80

⁽¹⁾ EPA Guidelines must be used to calculate the emission performance reductions for Region 1.

Fungible Product Specifications

Fungible product specifications are available for reformulated gasolines in subheading *Fungible Product Specifications* in Section III of this booklet.

Enforcement Tolerances

EPA has acknowledged enforcement tolerances for RFG testing at the terminals of 2% emissions performance reductions. Plantation's minimum emissions performance reductions for Region 1 receipts will be 29.0% for cycles 16 through 23 and 27.0% for cycles 24 through 49. Plantation's minimum emissions performance reductions for Region 2 receipts will be 27.4% for cycles 16 through 23 and 25.4% for cycles 24 through 49. See *Product Specifications* Section above.

Non-Compliant Reformulated Gasoline

A movement of RFG gasoline that does not meet the product specifications outlined in the above section, *Product Specifications*, shall be designated by Plantation as non-compliant RFG. Plantation shall not make this determination until additional testing has been performed on this movement, which may include the use of an independent testing service.

In the event there is a discrepancy between the customer's certificate of analysis test results and Plantation's test results, a determination by an independent testing service may be made. If there is insufficient time to consult an independent testing service, Plantation's test results shall prevail.

The Product Quality Team shall determine if a movement of RFG is non-compliant. In the case of non-compliant RFG, a Quality Control Team member shall notify the appropriate customer contact that the movement is not in compliance with EPA RFG regulations and as such, is not suitable for motor vehicle use in an area requiring RFG. This notification may initially be by phone, but shall be followed by a written document.

If possible, the customer shall have the option of changing distribution of the batch to a geographic location where the batch meets the applicable standard (e.g., VOC Region 1 to conventional gasoline). Otherwise, upon arrival into the customer's terminal, Plantation will request that the customer designate the gasoline as not complying with EPA RFG regulations.

A Quality Control Team member shall issue special sampling and testing instructions for a non-compliant or suspected non-compliant RFG movement to all downstream testing locations, if deemed necessary. In the case of non-compliant RFG gasoline, a Quality Control Team member shall also provide a written or electronic document to all Plantation tank farm locations indicating that the movement is not in compliance with EPA RFG regulations and as such, is not suitable for motor vehicle use in an area requiring RFG. The document shall also indicate that Plantation has determined through its sampling & testing program that this product exceeds the applicable standard for its intended use. This document shall be maintained at each Plantation tank farm during the time that the movement is in that tank farm.

The Quality Control Engineer/Scientist shall record and maintain all data pertinent to the non-compliant RFG movement.

Documentation

The Quality Control Team shall sufficiently document all aspects of Plantation's RFG Monitoring Program so that an audit of the program can be readily performed.

This documentation, along with customer laboratory reports, shall be maintained by Plantation for a period of five years. Plantation's batch number for the movement shall serve as identification for the movement.

Training of Operations Personnel

All appropriate personnel shall receive annual sampling and testing training. This training is performed by a Quality Control Team member(s). The training shall include:

- Importance of sampling and testing.
- Familiarization with equipment
- Explain sampling and testing procedures.
- Explain paperwork.

- Explain personnel's responsibilities.
- Allow personnel to perform sampling and testing procedures.

Liability

Presumption of Liability

Under the EPA RFG Regulations, Plantation Pipe Line Company is defined as a carrier, and as such, is presumptively liable for violations detected at its facilities. To rebut this presumption, Plantation must demonstrate (in addition to other defense elements) an oversight program of the gasolines it transports. Such an oversight program does not necessitate testing each batch of gasoline but envisions a program such as periodic sampling and testing. The frequency of testing depends on factors such as the size of the batch, etc., and larger batches justify more frequent testing.

Defense Elements

Defense elements include:

- An oversight program, which includes sampling and testing.
- Certificates of Analysis from customers.
- Information which details movement of gasoline through the system, including transfer documents, operational schedules and forecasts, and historical delivery reports.

Penalties

The penalty for violations per § 80.80 Penalties, Section (a), states, "Any person that violates any requirement or prohibition of subpart D, E or F of this part shall be liable to the United States for a civil penalty of not more than the sum of \$25,000 for every day of each such violation and the amount of economic benefit or savings resulting from each such violation."

Revisions

This document cancels and supersedes any previously issued versions of Plantation's RFG programs, policies or guidelines on EPA RFG regulations and RFG sampling and testing, and may be modified by subsequent notice to reflect EPA's implementation of the RFG regulations and any amendments thereto.

INSTRUCTIONS FOR SAMPLING AND TESTING OF RFGIntroduction

RFG sampling and testing locations include Baton Rouge, Collins, Helena, Greensboro and Newington.

In the location specific instructions that follow, the following terms are used:

<u>Term</u>	<u>Refers To</u>
RFG Field Analyzer	Gasoline grades F(1-5), H(1-5) Petrospec GS 1000 Portable Multi-Function Analyzer

Location Specific Instructions*Baton Rouge, LA*

Two sets of samples (top, middle, and bottom) shall be obtained for each tank of RFG, and RBOB in 1-liter aluminum sample containers. Refer to the Section *Sampling Procedures* for details on sampling. Use one set of samples for local testing of RVP, benzene and oxygen content. Ship the remaining set of samples via next day air to the Bremen laboratory for determination of gravity, sulfur, RVP, E200, E300, aromatics, olefins, benzene, oxygen content, and oxygenate(s) (type and amount) for the calculation of the VOC reduction percentage. Obtain and retain all usual inbound and outbound gasoline samples.

In the case of fungible movements, all batches in each tank shall be identified by batch number on all documents, including sample tags.

Collins, MS

Two sets of samples (top, middle, and bottom) shall be obtained for each tank of RFG, and RBOB in 1-liter aluminum sample containers. Refer to the Section *Sampling Procedures* for details on sampling. Use one set of samples for local testing of RVP, benzene and oxygen content. Ship the remaining set of samples via next day air to the Bremen laboratory for determination of gravity, sulfur, RVP, E200, E300, aromatics, olefins, benzene, oxygen content, and oxygenate(s) (type and amount) for the calculation of the VOC reduction percentage. Obtain and retain all usual inbound and outbound gasoline samples.

In the case of fungible movements, all batches in each tank shall be identified by batch number on all documents, including sample tags.

Helena, AL

Two sets of samples (top, middle, and bottom) shall be obtained for each tank of RFG, and RBOB in 1-liter aluminum sample containers. Refer to the Section *Sampling Procedures* for details on sampling. Use one set of samples for local testing of RVP, benzene and oxygen content. Ship the remaining set of samples via next day air to the Bremen laboratory for determination of gravity, sulfur, RVP, E200, E300, aromatics, olefins, benzene, oxygen content, and oxygenate(s) (type and amount) for the calculation of the VOC reduction percentage. Obtain and retain all usual inbound and outbound gasoline samples.

In the case of fungible movements, all batches in each tank shall be identified by batch number on all documents, including sample tags.

Bremen, GA

Two sets of samples (top, middle, and bottom) shall be obtained for each tank of RFG, and RBOB in 1-liter aluminum sample containers. Refer to the Section *Sampling Procedures* for details on sampling. Use one set of samples for local testing of RVP, benzene and oxygen content. Ship the remaining set of samples via next day air to the Bremen laboratory for determination of gravity, sulfur, RVP, E200, E300, aromatics, olefins, benzene, oxygen content, and oxygenate(s) (type and amount) for the calculation of the VOC reduction percentage. Obtain and retain all usual inbound and outbound gasoline samples.

In the case of fungible movements, all batches in each tank shall be identified by batch number on all documents, including sample tags.

Greensboro, NC

Two sets of samples (top, middle, and bottom) shall be obtained for each tank of RFG, and RBOB in 1-liter aluminum sample containers. Refer to the Section *Sampling Procedures* for details on sampling. Use one set of samples for local testing of RVP, benzene and oxygen content. Ship the remaining set of samples via next day air to the Bremen laboratory for determination of gravity, sulfur, RVP, E200, E300, aromatics, olefins, benzene, oxygen content, and oxygenate(s) (type and amount) for the calculation of the VOC reduction percentage. Obtain and retain all usual inbound and outbound gasoline samples.

In the case of fungible movements, all batches in each tank shall be identified by batch number on all documents, including sample tags.

Also, obtain line composite samples of deliveries made directly from the CNG line to the customer's terminal in 1-liter aluminum sample containers. Test these line composite samples locally for Reid vapor pressure, benzene and oxygen content.

Newington, VA

A line composite sample of every RFG, or RBOB batch delivered at Newington shall be obtained in a 1-liter aluminum sample container. Ship the sample via next day air to the Bremen laboratory for determination of gravity, sulfur, RVP, E200, E300, aromatics, olefins, benzene, oxygen content, and oxygenate(s) (type and amount) for the calculation of the VOC reduction percentage. The line composite sample shall be comprised of at least three spot samples, one near the start of the delivery, one near the middle and one near the end of the delivery. Keep

sample container capped tightly between sampling.

In the case of fungible movements, all batches in each tank shall be identified by batch number on all documents, including sample tags.

Special Testing

The Chemist shall perform special sampling and testing to monitor system performance. The Product Technologists shall perform periodic sampling and testing of gasoline batches at delivery points within his or her area of responsibility.

Additional sampling and testing on a batch shall be performed if off-specification test results are obtained. See the Section, *Non-Compliant Reformulated Gasoline*.

Sampling Procedures

Sampling Procedure from Pipeline

Spot samples should be obtained from batch somewhere within one-fourth to three-fourths of volume of batch.

Flush sample line for several minutes to assure sampling from current pipeline flow.

Rinse sample container with gasoline to be sampled.

Fill sample bottles quickly to within 80% of full, and cap immediately with Teflon lined cap.

Transport sample to testing area. In the case of RVP testing, chill in an ice bath for at least thirty minutes. If testing area is more than thirty minutes away, chill sample in ice chest (or equivalent) filled with ice while in-transit. The sample should be tested within 24 hours after obtaining the sample.

Perform testing procedure(s).

Sampling Procedure from Tank

Exercise all normal safety procedures when climbing tank and sampling product.

Follow all normal Plantation tank sampling procedures for sampling, making sure that sample bottle is capped as soon as possible once removed from tank. Sample volume in bottle should be approximately 80 percent full. Before obtaining sample, rinse sample container with gasoline to be sampled.

Do not transfer sample to another container. Use only the specified sample container.

Proceed to testing area. In the case of RVP testing, chill in an ice bath for at least thirty minutes. The sample should be tested within 24 hours after obtaining the sample.

Testing Procedures

Testing procedures shall be performed in accordance with Plantation Pipe Line Company's Reid Vapor Testing Procedures, which comply with ASTM D 5191 and during the VOC control period in accordance with 40 CFR, Part 80, Appendix E, Method 3, or Plantation Pipe Line Company's Oxygen and Benzene Field Instrument Testing Procedures.

Instrument Calibration Procedures

The RVP test instruments shall be calibrated in accordance with Plantation Pipe Line Company's Reid Vapor Field Instrument Calibration Procedures. The field analyzers shall be calibrated in accordance with Plantation Pipe Line Company's Oxygen and Benzene Field Instrument Calibration Procedures.

Notification Procedures

Initial notification of an exception, benzene content, oxygen content, or VOC reduction percentage that is out of the range of minimum and maximum values, to another party may be made by phone or in person, but shall be followed as soon as practical in writing, preferably by E-mail. Refer to the Section, *Product Specifications*, to for the range of minimum and maximum test results.

Testing Locations

Testing locations shall complete form PPL-XXX and submit to the Operations Control Department on a weekly basis. In the case of an exception, report immediately to the applicable dispatcher or controller and use the *Action Taken* column on PPL-XXX to indicate who was notified of the exception and what additional sampling and testing was performed. At minimum, the applicable controller shall be notified and the sample retested. It is appropriate to retest the tank and test additional retain samples.

Controller

The applicable Controller shall notify the Controller Team Leader on shift and the Quality Control Engineer/Scientist, or the Chemist.

Quality Control and the Chemist

Notification procedures for the Quality Control Engineer/Scientist and the Chemist are outlined the previous Section, *Non-Compliant Reformulated Gasoline*.

Schedule of RVP Movments

Lift Date from Collins			January					February					March					April					May				June																
			1	6	11	16	21	26	31	5	10	15	20	25	2	7	13	18	23	28	2	7	12	17	22	27	2	7	12	17	22	28	2	7	12	17	22	27					
Product Description			Cycle																																								
Grade	Type	RVP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36					
F, H	1	Note 1																																									
	3	11.5																																									
	4	13.5																																									
	5	15.0																																									
L	2	10.0																																									
	3	12.5																																									
	4	14.5																																									
M, V	1	7.8																																									
	2	9.0																																									
	3	11.5																																									
	4	13.5																																									
	5	15.0																																									
S, T	0	8.0																																									
	2	10.0																																									
	3	12.5																																									
	4	14.5																																									

Note: The shaded areas indicate the cycles in which a particular grade can be transported.

N

Grades F, H, L, S, T – Will only move one RVP per grade per cycle – Please contact scheduler if RVP Schedule should be adjusted due to delivery times.

Note 1 - VOC Control Region 1 – EPA Guidelines must be used to calculate the emission performance reductions.

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Schedule of RVP Movements

Lift Date from Collins			July					August					September					October					November					December												
			2	7	12	17	22	27	2	7	12	17	22	27	1	6	11	16	21	26	1	6	11	17	22	27	1	6	11	16	21	26	1	6	11	16	21	26		
Product Description			Cycle																																					
Grade	Type	RVP	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72		
F, H	1	Note 1																																						
	3	11.5																																						
	4	13.5																																						
	5	15.0																																						
L	2	10.0																																						
	3	12.5																																						
	4	14.5																																						
M, V	1	7.8																																						
	2	9.0																																						
	3	11.5																																						
	4	13.5																																						
	5	15.0																																						
S, T	0	8.0																																						
	2	10.0																																						
	3	12.5																																						
	4	14.5																																						

Note: The shaded areas indicate the cycles in which a particular grade can be transported.

Grades F, H, L, S, T – Will only move one RVP per grade per cycle – Please contact scheduler if RVP Schedule should be adjusted due to delivery times.

Note 1 - VOC Control Region 1 – EPA Guidelines must be used to calculate the emission performance reductions.