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SUPPLEMENT

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No. 90

No. 136

THE PETROLEUM (QUALITY CONTROL) ACT

THE PETROLEUM (QUALITY CONTROL) (AMENDMENT) REGULATIONS, 2008

In exercise of the powers conferred upon the Minister by section 19 of the Petroleum (Quality Control) Act, and every other power hereunto enabling, the following Regulations are hereby made:—

1. These Regulations may be cited as the Petroleum (Quality Control) (Amendment) Regulations, 2008 and shall be read and construed as one with the Petroleum (Quality Control) Regulations (hereinafter referred to as the principal Regulations) and all amendments thereto.

2. The Second Schedule to the principal Regulations is amended by—

- (a) deleting the heading “Product Type: *Gasoline*” and the entry with respect thereto and substituting therefor the following:

“ Product Type: UNLEADED MOTOR GASOLINE, 90 OCTANE INDEX (OI)

Properties	ASTM Test Method	Units	Min.	Max.
Aromatics, Total	D1319, D5580, D6550, D6293	vol.%		45.0
Benzene, vol.%	D3606, D5580	vol.%		5.0
Corrosion, Copper Strip, 3hrs @50 °C	D130 Table A1.1			1
Corrosion, Silver Strip, 3hrs @ 50 °C ¹	D4814-07b Annex A1		Report	
Density@15 °C, kg/m ³	D4052	kg/m ³	Report	
Gravity API 60 °F	D1298		Report	
Gum, Unwashed	D381	mg/100cm ³		5
Lead, g/l ¹	D3237	g/l		0.013
Metal, Manganese ¹	D3831	mg/l		18
Octane Index (R + M)/2 ²	D2700, D2699		90.0	
Olefins ³	D1319, D5580, D6550, D6293	vol.%	Report	
Oxidation Stability	D525	minutes	240	
Oxygenate, MTBE, vol.%	D4815 D5845	vol.%		15
Sulphur ⁴	D4294, D5453, D2622, D7039	mass%		0.15
Dist. 10% Evap.	D86	°C		70
Dist. 50% Evap.			77	121
Dist. 90% Evap.				190
Dist. FBP				225
Dist. Residue ⁵			Vol.%	
RVP @37.8C	D5191	Pa, gauge		6.89 x 10 ⁴
Additives ⁶			Report	
Gum, Unwashed ⁷	D381	Mg/100cm ³		5
Appearance ⁸	D-4176		Bright and clear visually free from water, sediment and suspended matter	

REQUIREMENTS:

- NOTES:
1. Certificate of quality from originating refineries will be accepted. Where lead or MMT is not added a statement of declaration should be provided.
 2. Octane Index (OI) value to be indicated as the average of Research Octane Number (R) and Motor Octane Number (M). This is stated as $[R+M]/2$ to consumers. All octane reading shall be to one decimal place.
 3. Feedback on olefins should be reported to the Bureau of Standards Jamaica for a database and to be reviewed on a yearly basis.
 4. The content of sulphur shall remain at a maximum level of 0.15% until the year 2012.
 5. Distillation Residue is used instead of Distillation Recovery.
 6. All unleaded gasoline sold or distributed by marketing companies shall contain sufficient detergent additive to pass ASTM D5500 using the Lowest Additive Concentration (LAC) necessary for additives certified by US EPA, European Union, or other government jurisdictions approved by the Minister on advice from the Bureau of Standards Jamaica. All gasoline additives shall be disclosed and shall have current approval by US EPA, European Union or other government jurisdictions approved by the Minister on advice from the Bureau of Standards Jamaica.
 7. Unwashed gum specification applies to gasoline-ethanol blends without additives.
 8. The finished gasoline shall be visually free of dissolved water, sediment and suspended matter and shall be clear and bright at ambient temperature or 21° C whichever is higher.

Additional Requirements

- I. Quality Control testing shall be conducted from loading throughout the transportation and distribution chain to verify product integrity.
- II. There shall be a quality certificate for each unique finished batch of gasoline.

Product Type: UNLEADED MOTOR GASOLINE, 87 Octane Index (OI)

Properties	ASTM Test Method	Units	Min.	Max.
Aromatics, Total	D1319, D5580, D6550, D6293	vol.%		45.0
Benzene, vol.%	D3606, D5580	vol.%		5.0
Corrosion, Copper Strip, 3hrs @50 °C	D130 Table A1.1			1
Corrosion, Silver Strip, 3hrs @ 50 °C ¹	D4814-07b Annex A1		Report	
Density@15 °C, kg/m ³	D4052	kg/m ³	Report	
Gravity API 60 °F	D1298		Report	
Gum, Unwashed	D381	mg/100cm ³		5
Lead, g/l ¹	D3237	g/l		0.013
Metal, Manganese ¹	D3831	mg/l		18
Octane Index (R + M)/2 ²	D2700 D2699		87.0	
Olefins ³	D1319, D5580, D6550 D6293	vol.%	Report	
Oxidation Stability	D525	minutes	240	
Oxygenate, MTBE, vol.%	D4815, D5845	vol.%		15
Sulphur ⁴	D4294, D5453, D2622, D7039	mass%		0.15
Dist. 10% Evap.	D86	°C		70
Dist. 50% Evap.			77	121
Dist. 90% Evap.				190
Dist. FBP				225
Dist. Residue ⁵			vol.%	
RVP @37.8C	D5191	Pa, gauge		6.89 x 10 ⁴
Additives ⁶			Report	
Gum, Unwashed ⁷	D381	Mg/100cm ³		5
Appearance ⁸	D-4176		Bright and clear visually free from water, sediment and suspended matter	

REQUIREMENTS:

- NOTES: 1. Certificate of quality from originating refineries will be accepted. Where lead or MMT is not added a statement of declaration should be provided.

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3. Unwashed gum specification; applies to gasoline-ethanol blends without additives.
 4. Certificate of quality from originating refineries will be accepted. Where lead or MMT is not added to gasoline a statement of declaration indicating this fact shall be provided.
 5. Octane Index (OI) value to be indicated as the average of Research Octane Number (R) and Motor Octane Number (M). This is stated as $[R+M]/2$ to consumers. All octane reading shall be to one decimal place.
 6. Feedback on olefins should be reported to the Bureau of Standards Jamaica to inform a database system; and is to be reviewed on a yearly basis.
 7. The content of sulphur shall remain at a maximum level of 0.15% until the year 2012.
 8. Distillation requirements shall meet ASTM D4814.
 9. All unleaded E10 gasoline sold or distributed by marketing companies shall contain sufficient detergent additive to pass ASTM D5500 using the Lowest Additive Concentration (LAC) necessary for additives certified by US EPA, European Union, or other government jurisdictions. All gasoline additives shall be disclosed and shall have current approval by US EPA, European Union or other government jurisdictions approved by the Minister on advice from the Bureau of Standards Jamaica.
 10. The finished gasoline shall be visually free of dissolved water, sediment and suspended matter and shall be clear and bright at ambient temperature or 21° C whichever is higher.

Additional Requirements

- I. The quality of the denatured ethanol used to make finished gasoline product shall meet ASTM D4806 with the exception that denatured ethanol shall have a 4 vol.% minimum and 5 vol.% maximum gasoline. The E-10 Ethanol limits are based internationally from the addition of 10 vol.% denatured ethanol which translates into a regulation of 9–10 vol.% ethanols.
- II. Product quality testing shall be conducted from loading throughout the distribution chain to verify product integrity with respect to water and ethanol content. Such tests may include simple field tests and/or laboratory tests, e.g. Quick Measuring Cylinder Test.
- III. There shall be a quality certificate for finish batch of E10 gasoline based on the obtained hand blend results of the base gasoline of 9.5 vol.% undenatured or 10% denatured ethanol.

Product Type: UNLEADED E10 MOTOR GASOLINE, 90 Octane Index (OI)

Properties	ASTM Test Method	Units	Min.	Max.
Aromatics, Total	D1319, D5580, D6550 D6293	vol.%		45.0
Benzene level -gasoline blend-stock -hand-blend	D3606, D5580	vol.%		5.0
Corrosion, Copper Strip, 3hrs @50 °C	D130 Table A1.1			1
Corrosion, Silver Strip, 3hrs @ 50 °C ¹	D4814		Report	
Density@15 °C,	D4052	kg/m ³	Report	
Gravity API 60 °F	D1298		Report	
Driveability Index ²	D4814	°C	Report	
Gum, Unwashed ³	D381	mg/100cm ³		5
Lead, g/l ⁴	D3237	g/l		0.013
Metal, Manganese ⁴	D3831	mg/l		18
Octane Index (R + M)/2 ⁵	D2700 D2699		90.0	
Olefins ⁶	D1319, D5580, D6550, D6293	vol.%	Report	
Oxidation Stability	D525	minutes	240	
Oxygenate, Ethanol	D4815, D5599	vol.%	9	10
Total Oxygen	D5845, D4815, D5599	mass%		4
Sulphur ⁷	D5453, D4294 D2622, D7039	mass%		0.15
Dist. 10% Evap. ⁸	D86	°C		70
Dist. 50% Evap. ⁸			66	118
Dist. 90% Evap. ⁸				190
Dist. FBP ⁸				225
Dist. Residue ⁸			vol.%	
RVP @37.8 °C	D5191	Pa, gauge		7.58 x 10 ⁴
Additives ⁹			Report	
Appearance ¹⁰	D-4176		Bright and clear visually free from water, sediment and suspended matter	

REQUIREMENTS:

- NOTES: 1. Silver corrosion quality aspect shall be reported in the quality certificate by the importer/supplier for each batch of gasoline and is to form a database system. Data for a two year period is to be supplied for analysis by the Bureau of Standards Jamaica.

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2. Drivability Index quality aspect shall be reported in the quality certificate by the importer/supplier for each batch of gasoline and is to form a database system. Data for a two year period is to be supplied for analysis by the Bureau of Standards Jamaica.
 3. Unwashed gum specification; applies to gasoline-ethanol blends without additives.
 4. Certificate of quality from originating refineries will be accepted. Where lead or MMT is not added to gasoline a statement of declaration indicating this fact shall be provided.
 5. Octane Index (OI) value to be indicated as the average of Research Octane Number (R) and Motor Octane Number (M). This is stated as $[R+M]/2$ to consumers. All octane reading shall be to one decimal place.
 6. Feedback on olefins should be reported to the Bureau of Standards Jamaica to inform a database system; and is to be reviewed on a yearly basis.
 7. The content of sulphur shall remain at a maximum level of 0.15% until the year 2012.
 8. Distillation requirements shall meet ASTM D4814.
 9. All unleaded E10 gasoline sold or distributed by marketing companies shall contain sufficient detergent additive to pass ASTM D5500 using the Lowest Additive Concentration (LAC) necessary for additives certified by US EPA, European Union, or other government jurisdictions. All gasoline additives shall be disclosed and shall have current approval by US EPA, European Union or other government jurisdictions approved by the Minister on advice from the Bureau of Standards Jamaica.
 10. The finished gasoline shall be visually free of dissolved water, sediment and suspended matter and shall be clear and bright at ambient temperature or 21° C whichever is higher.

Additional Requirements

- I. The quality of the denatured ethanol used to make finished gasoline product shall meet ASTM D4806 with the exception that denatured ethanol shall have a 4 vol.% minimum and 5 vol.% maximum gasoline. The E-10 Ethanol limits are based internationally from the addition of 10 vol.% denatured ethanol which translates into a regulation of 9–10 vol.% ethanols.

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- II. Product quality testing shall be conducted from loading throughout the distribution chain to verify product integrity with respect to water and ethanol content. Such tests may include simple field tests and/or laboratory tests, e.g. Quick Measuring Cylinder Test.
 - III. There shall be a quality certificate for finish batch of E10 gasoline based on the obtained hand blend results of the base gasoline of 9.5 vol.% undenatured or 10% denatured ethanol.”.

Dated this 28th day of October, 2008.

CLIVE MULLINGS
Minister of Energy.

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2. Octane Index (OI) value to be indicated as the average of Research Octane Number (R) and Motor Octane Number (M). This is stated as $[R+M]/2$ to consumers. All octane reading shall be to one decimal place.
 3. Feedback on olefins should be reported to the Bureau of Standards Jamaica for a database and to be reviewed on a yearly basis.
 4. The content of sulphur shall remain at a maximum level of 0.15% until the year 2012.
 5. Distillation Residue is used instead of Distillation Recovery.
 6. All unleaded gasoline sold or distributed by marketing companies shall contain sufficient detergent additive to pass ASTM D5500 using the Lowest Additive Concentration (LAC) necessary for additives certified by US EPA, European Union, or other government jurisdictions approved by the Minister on advice from the Bureau of Standards Jamaica. All gasoline additives shall be disclosed and shall have current approval by US EPA, European Union or other government jurisdictions approved by the Minister on advice from the Bureau of Standards Jamaica.
 7. Unwashed gum specification applies to gasoline-ethanol blends without additives.
 8. The finished gasoline shall be visually free of dissolved water, sediment and suspended matter and shall be clear and bright at ambient temperature or 21° C whichever is higher.

Additional Requirements

- I. Quality Control testing shall be conducted from loading throughout the transportation and distribution chain to verify product integrity.
- II. There shall be a quality certificate for each unique finished batch of gasoline;”.

- (b) deleting the heading "Product Type: Kerosene" and the entry with respect thereto and substituting therefor the following:

" Product: KEROSENE

Alternative Description: DOMESTIC KEROSENE

Properties	ASTM Test Method	Units	Min.	Max.
Appearance			Bright and clear and free from visible sediment and water	
Burning Quality	D-187		Pass	
Smoke Point	D-1322	mm	20	
Calorific value	D-3338	MJ/Kg	40.4	
Colour			Blue	
Corrosion Copper – 2 hours	D-130			3
Distillation:	D-86			
10% Recovery		°C		205
FBP		°C		300
Density@15 °C	D-1298	kg/m ³	775	830
Flash Point	D-56	°C	38	
Freeze Point	D-2386	°C		-30
Sulphur	D-2622	%		0.3
Additive:				
Antioxidant		ppm	17	24
Antistatic, Stadis, 450		ppm		3
Conductivity	D-2624	ps/m	80	450

- (c) deleting the entry with respect to the heading "Product Type: Aviation Turbo Fuel" and substitute therefor the following:

REQUIREMENT:

The aviation turbo fuel specifications outlined in the Aviation Fuel Quality Requirement for Jointly Operated Systems (AFQRJOS) checklist as amended from time to time shall apply;

- (d) deleting the heading "Product Type: Distillate Fuel Alternative Description: Automotive Diesel Oil" and the entry with respect thereto and inserting therein the following—

"Product Type: AUTOMOTIVE DIESEL OIL

Properties	ASTM Test Method	Units	Min.	Max.
Ash Content	D-482	(wt %)		0.01
Corrosion, Copper Strip, 3hrs@100 °C	D130			1
Cetane Index (Calculated) ¹	D-976, D4737		45	
Density@15 °C,	D4052	kg/m ³	829	870
Gravity API 60 °F ²	D1298		Report	
Odour ³			Satisfactory	
Dist. 50% Evap	D-86	°C	Report	
Dist. 90% Evap	D-86	°C		352
Carbon Residue Content wt.% on 10% Bottoms	D189 D4530	(wt %)		0.1
Viscosity, Kinematic @38°C	D-7042 D-445	mm ² /s	2.0	4.5
Flash Point	D-93	°C	55	
Pour Point		°C		0
Water content	D-95 D-6304	Vol %		0.05
Sulphur	D-2622 D-4294 D-5453	mass%		0.5
Colour	D1500			2
Neutralization Number (KOH)	D-974	mg/100ml		0.5
Sediment , suspended,	D-473	mg/100ml		0.7

REQUIREMENTS:

- NOTES: 1. Cetane index (D-976) is calculated from the gravity and the distillation temperature at which 50% is recovered. Alternatively a Cetane Number of 45 minimum is acceptable.
2. Gravity shall be as low as practicable, but abrupt changes should be avoided.

Product Type: UNLEADED E10 MOTOR GASOLINE, 90 Octane Index (OI)

Properties	ASTM Test Method	Units	Min.	Max.
Aromatics, Total	D1319, D5580, D6550 D6293	vol.%		45.0
Benzene level -gasoline blend-stock -hand-blend	D3606, D5580	vol.%		5.0
Corrosion, Copper Strip, 3hrs @50 °C	D130 Table A1.1			1
Corrosion, Silver Strip, 3hrs @ 50 °C ¹	D4814		Report	
Density@15 °C,	D4052	kg/m ³	Report	
Gravity API 60 °F	D1298		Report	
Driveability Index ²	D4814	°C	Report	
Gum, Unwashed ³	D381	mg/100cm ³		5
Lead, g/l ⁴	D3237	g/l		0.013
Metal, Manganese ⁴	D3831	mg/l		18
Octane Index (R + M)/2 ⁵	D2700 D2699		90.0	
Olefins ⁶	D1319, D5580, D6550, D6293	vol.%	Report	
Oxidation Stability	D525	minutes	240	
Oxygenate, Ethanol	D4815, D5599	vol.%	9	10
Total Oxygen	D5845, D4815, D5599	mass%		4
Sulphur ⁷	D5453, D4294 D2622, D7039	mass%		0.15
Dist. 10% Evap. ⁸	D86	°C		70
Dist. 50% Evap. ⁸			66	118
Dist. 90% Evap. ⁸				190
Dist. FBP ⁸				225
Dist. Residue ⁸			vol.%	
RVP @37.8 °C	D5191	Pa, gauge		7.58 x 10 ⁻¹
Additives ⁹			Report	
Appearance ¹⁰	D-4176		Bright and clear visually free from water, sediment and suspended matter	

REQUIREMENTS:

- NOTES: 1. Silver corrosion quality aspect shall be reported in the quality certificate by the importer/supplier for each batch of gasoline and is to form a database system. Data for a two year period is to be supplied for analysis by the Bureau of Standards Jamaica.
2. Drivability Index quality aspect shall be reported in the quality certificate by the importer/supplier for each batch of gasoline and is to form a database system. Data for a two year period is to be supplied for analysis by the Bureau of Standards Jamaica.