Mississippi Biodiesel Regulation for B100 and Biodiesel/Petroleum Diesel Fuel Blends Renewable Diesel and Co-Processed Renewable Diesel

113.01 Definitions: For use in this regulation, the following terms and definitions apply. The word "shall" indicates mandatory requirements of this regulation.

1. Alcohol-means methanol, ethanol, isopropyl alcohol, n-propanol (n-propyl alcohol), and any form of butyl alcohol (butanol).
2. Biodiesel-means an oxygenated fuel comprised of mono-alkyl esters of long chain fatty acids from biologically derived oil and fats and shall be designated B100.
3. Biodiesel Blends-means a fuel comprised of a blend of biodiesel with petroleum-based diesel fuel in a specified ratio and shall be designated as BXX. In the abbreviation BXX, the XX represents the volume percentage of biodiesel fuel in the blend. For the purpose of meeting the fuel specifications in subsection 113.02, any fractional percentage of biodiesel will be rounded up to the next whole number. For instance, a B5.3 product will be required to meet the fuel specifications for B6.
4. Certificate of Analysis (COA) or Certificate of Full Specification Analysis-a document issued by the producer showing that biodiesel and biodiesel blends meet the requirements and specifications set forth in this regulation. The certificate must contain the date of certification and may not be older than 90 days from the date of issue. The testing may be performed by either the producer, importer or an independent laboratory; but, it must be conducted per 300,000 gallons of produced biodiesel and biodiesel blend or every 90 days, whichever comes first. A COA will not be required for a biodiesel blend if a producer has a current COA for biodiesel and petroleum diesel used to make the biodiesel blend.
5. Cetane number-means a numerical measure of the ignition performance of a diesel fuel obtained by comparing it to reference fuels in a standardized engine test.
6. Co-Processed Renewable Diesel – means renewable diesel that is produced when an oil company adds small amounts vegetable oils or animal fats to the traditional petroleum refining process when producing diesel fuel (co-processing) that meets the fuel specification requirements of ASTM D975 (petroleum diesel fuel) or ASTM D396 (home heating oil). Scheduled to be produced in existing oil refineries.
7. Distributor/Retailer/Marketer-means an entity engaged in the business of the distribution and sale of biodiesel and/or biodiesel blends of B1 or greater.
8. Grade of product-means B100 or BXX.
9. Producer/Blender-means the entity responsible to the first purchaser of biodiesel or biodiesel blend or renewable diesel or renewable diesel blend or co-processed renewable diesel or co-processed renewable diesel blend for that biodiesel or biodiesel blend or renewable diesel or renewable diesel blend or co-processed renewable diesel or co-processed renewable diesel blend meeting the specifications set forth in this regulation.
10. Renewable Diesel – means fuel produced from biological material using a process called "thermal depolymerization" that meets the fuel specification requirements of

ASTM D975 (petroleum diesel fuel) or ASTM D396 (home heating oil). Produced in free-standing facilities.

(Adopted 2009.)

113.02 Standard fuel specifications for diesel fuel used in biodiesel blends, biodiesel, and biodiesel blends.

1. Diesel Fuel. All petroleum diesel fuel used in biodiesel blends shall meet the requirements of the most recent version of ASTM D 975, "Standard Specification for Diesel Fuel Oils" prior to blending with biodiesel.
2. Biodiesel. All biodiesel intended for sale or for blending with diesel shall meet the requirements listed in Table 1 prior to blending with petroleum diesel fuel.
3. Biodiesel Blends. Blends of biodiesel and petroleum diesel fuels shall meet the following requirements:
   a. Blends of B1-B5. The biodiesel is treated in these blends as a performance fuel oxygenate additive to petroleum diesel; therefore, these blends must meet the specifications in ASTM D 975, "Standard Specification of Diesel Fuel Oils".
   b. Blends of B6-B20. These blends shall meet the specification requirements of Table 2.
   c. Blends of B21-B80. These blends shall meet the specification requirements of Table 3.
   d. Blends of B81-B99. These blends shall meet all of the requirements and specifications of B100 as in Table 1. These blends will be considered as B100 fuel with additives that increase the performance of pure biodiesel.
4. Renewable Diesel. Blends of Renewable Diesel and petroleum diesel fuels shall meet the specifications in ASTM D 975, "Standard Specification of Diesel Fuel Oils" or ASTM D 396 "Standard Specification of Home Heating Oil".
5. Co-Processed Renewable Diesel. Blends of Co-Processed Renewable Diesel and petroleum diesel fuels shall meet the specifications in ASTM D 975, "Standard Specification of Diesel Fuel Oils" or ASTM D 396 "Standard Specification of Home Heating Oil".

(Adopted 2009.)

Table 1. Biodiesel specifications.

Property	Test Method[a]	Grade S15 Limits	Grade S500 Limits	Units
Kinematic Viscosity, 104°F	ASTM D 445	1.9-6.0	1.9-6.0	mm^2/s
Sulfated Ash	ASTM D 874	0.020 max	0.020 max	% mass
Sulfur	ASTM D 7220 ASTM D 4294	0.0015 max (15)	0.05 max (500)	% mass (ppm)
Copper strip Corrosion	ASTM D 130	No. 3 max	No. 3 max	
Cetane Number	ASTM D 613	47 min	47 min	
Cloud Point	ASTM D 2500	Report	Report	°F
Cold Filter Plugging Point	ASTM D 6371	Report	Report	°F
Carbon Residue	ASTM D 4530	0.050 max	0.050 max	% mass

Acid Number	ASTM D 664	0.50 max	0.50 max	mg KOH/g
Free glycerin	ASTM D 6584	0.020	0.020	% mass
Total glycerin	ASTM D 6584	0.240	0.240	% mass
Phosphorous content	ASTM D 4951	0.001 max	0.001 max	% mass
Distillation Temperature, Atmospheric equivalent temperature. 90% recovered	ASTM D 1160	680 max	680 max	^{0}F
Water and sediment	ASTM D 2709	0.050 max	0.050 max	% volume
Oxidation Stability	EN 14112	3	3	hours
Flash Point	ASTM D 93	266[b] F min.	266[b] F min	F min
Alcohol content	EN 14110	0.20 max	0.20 max	% mass
Calcium and Magnesium, Combined	EN 14538	5 max	5max	ppm
Cold Soak filterability		360	360	seconds
Sodium and potasium	EN 14538	5 max	5 max	ppm

[a] The indicated test methods are the approved referee methods in Mississippi. Other acceptable substitute methods are accepted if approved by ASTM.
[b]If grade No. 1-D or blends of Grade No. 1-D and grade no.2-D diesel fuel are used, the minimum flash point shall be 100 °F.

Table 2. Detailed Requirements for B6-B20 biodiesel blends.

Property	**Test Method[a]**	**B6 - B20 S15**	**B6 - B20 S500[b]**	**B6 - B20 S5000[c]**
Acid Number Mg KOH/g, max	ASTM D 664	0.3	0.3	0.3
Viscosity mm^2/s at 104 °F	ASTM D 445	1.9-4.1[d]	1.9-4.1[d]	1.9-4.1[d]
Flash Point, °F, min	ASTM D 93	125[f]	125[f]	125[f]
Cloud Point °F, max	ASTM D 2500	Record	Record	Record
Cold Filter Plugging Point °F, max	ASTM D 6371	Record	Record	Record
Sulfur Content, (µg/g) max Mass % max	ASTM D 7039 ASTM D 4294	 0.0015	 0.05	 0.50

Distillation Temperature °F, 90% evaporated max	ASTM D 86	649	649	649
Ramsbottom Carbon Residueon 10% Bottoms, mass % max	ASTM D 524	0.35	0.35	0.35
Cetane Number	ASTM D 613	40	40	40
Ash Content, mass % max	ASTM D 1319	35	35	35
Water and Sediments Volume %, max	ASTM D 2709	0.05	0.05	0.05
Copper,Corrosion, 3 hrs @ 122 °F, max	ASTM D 130	No. 3	No. 3	No. 3
Biodiesel content, % v/v	EN 14078	6-20	6-20	6-20
Oxidation Stability hrs, min	EN 14112	6	6	6
Ash Content, mass%, max	ASTM D 462	0.01	0.01	0.01

[a] The indicated test methods are the approved referee methods in Mississippi. Other acceptable substitute methods are accepted if approved by ASTM.
[b]Under United States of America regulations, if grade B20 S500 are sold for tax exempt purpose then, at or beyond terminal storage tanks, they are required by 26 CFR part 48 to contain the dye Solvent Red 164 at a concentration spectrally equivalent to 3.9 lb per thousands barrels of the solid dye standard Solvent Red 164, or the tax must be collected.
[c]Under United States of America regulations, Grades B20 S5000 are required by 40 CFR part 8- to contain sufficient amount of the dye Red 164 so its presence is visually apparent. At or beyond terminal storage tanks, they are required by 26 CFR Part 48 to contain the dye Solvent Red 164 at a concentration spectrally equivalent to 3.9 lb per thousand barrels of the solid dye standard Solvent Red 26,
[d]If grade No. 1-D or blends of Grade No. 1-D and grade no.2-D diesel fuel are used, the minimum viscosity shall be 1.3 mm^2/s.
[f]If grade No. 1-D or blends of Grade No. 1-D and grade no.2-D diesel fuel are used, the minimum flash point shall be 100 °F.

Table 3 Detailed requirements for B21-B80 biodiesel blends.

Property	**Test Method[a]**	**B21 - B80 S15**	**B21 - B80 S500[b]**	**B20 - B80 S5000[c]**
Acid Number, mg KOH/g, max	ASTM D 664	0.7	0.7	0.7
Kinematic Viscosity mm^2/s at 104 °F	ASTM D 445	2.0-6.0	2.0-6.0	2.0-6.0
Flash Point	ASTM D 93	125[d]	125[d]	125[d]

°F, min				
Alcohol Content % mass max	EN 14110	0.20	0.20	0.20
Oxidation Stability hrs, min	EN 14112	6	6	6
Copper Corrosion Max	ASTM D 130	No. 3	No. 3	No. 3
Water and Sediments Volume % max	ASTM D 2709	0.05	0.05	0.05
Cetane Number	ASTM D613	42	42	42
Cloud Point	ASTM D 2500	Report	Report	Report
Cold Filter Plugging Point	ASTM D 6371	Report	Report	Report
Sulfur Content, (µg/g) max Mass % max	ASTM D 7039 ASTM D 4294	15	0.05	0.50
Ramsbottom Carbon Residueon 10% Bottoms, mass % max	ASTM D 524	0.35	0.35	0.35
% Biodiesel	FTIR	21-80	21-80	21-80

[a] The indicated test methods are the approved referee methods in Mississippi. Other acceptable substitute methods are accepted if approved by ASTM.
[b]Under United States of America regulations, if grade B20 S500 are sold for tax exempt purpose then, at or beyond terminal storage tanks, they are required by 26 CFR part 48 to contain the dye Solvent Red 164 at a concentration spectrally equivalent to 3.9 lb per thousands barrels of the solid dye standard Solvent Red 164, or the tax must be collected.
[c]Under United States of America regulations, Grades B20 S5000 are required by 40 CFR part 8- to contain sufficient amount of the dye Red 164 so its presence is visually apparent. At or beyond terminal storage tanks, they are required by 26 CFR Part 48 to contain the dye Solvent Red 164 at a concentration spectrally equivalent to 3.9 lb per thousand barrels of the solid dye standard Solvent Red 26.
[d]If grade No. 1-D or blends of Grade No. 1-D and grade no.2-D diesel fuel are used, the minimum flash point shall be 100 °F.

113.03 Classification and Method of Sale of Biodiesel B100 and Biodiesel Blends and Renewable Diesel Blends and Co-Processed Renewable Diesel Blends

1. Retail Dispenser Labeling. All B100 biodiesel that is kept, offered or exposed for sale or sold at retail shall conspicuously display the product name and/or brand name being sold therefrom exactly as such name and/or brand name that is registered with the department.
   a. The product shall be named B100 Biodiesel Fuel.

b. The decal shall be 2" x 6" in size and shall be in a clear and conspicuous place in type of at least one-half (1/2) inch in height, and one-sixteenth (1/16) inch stroke (width of type).
Example: B100 Biodiesel Fuel

2. Retail Dispenser Labeling. All biodiesel blends and/or Renewable Diesel blends and/or Co-Processed Renewable Diesel that are kept, offered or exposed for sale or sold at retail shall conspicuously display the product name and/or brand name being sold therefrom exactly as such name and/or brand name that is registered with the department.
   a. All biodiesel blend dispensers up to B5 shall be identified "may contain up to 5% biodiesel".
   b. All biodiesel blend dispensers B6-B20 shall be identified by the capital letter B followed by the numerical value representing the volume percentage of biodiesel fuel.
   Example: B10, B20.
   c. The product shall be named BXX Biodiesel Fuel Blend.
   d. The decal shall be 2" x 6" in size and shall be in a clear and conspicuous place in type of at least one-half (1/2) inch in height, and one-sixteenth (1/16) inch stroke (width of type).
   Example: B6 Biodiesel Blend
   e. When biodiesel blends greater than 20% by volume are offered by sale, each side of the dispenser where fuel can be delivered shall have a label conspicuously placed that states "Consult Vehicle Manufacturer Fuel Recommendations."
   f. All retail pumps or delivery devices shall be labeled with the appropriate Federal Trade Commission Biodiesel Blend Posting.

3. Retail Dispenser Labeling. All Renewable Diesel blends that are kept, offered or exposed for sale or sold at retail shall conspicuously display the product name and/or brand name being sold therefrom exactly as such name and/or brand name that is registered with the department.
   a. The product shall be named RDXX Renewable Diesel Fuel.
   b. The decal shall be 2" x 6" in size and shall be in a clear and conspicuous place in type of at least one-half (1/2) inch in height, and one-sixteenth (1/16) inch stroke (width of type).
   Example: RD10 Renewable Diesel Fuel

4. Retail Dispenser Labeling. All Co-Processed Renewable Diesel blends that are kept, offered or exposed for sale or sold at retail shall conspicuously display the product name and/or brand name being sold therefrom exactly as such name and/or brand name that is registered with the department.
   a. The product shall be named CPRD10 Co-Processed Renewable Diesel Fuel.
   b. The decal shall be 2" x 6" in size and shall be in a clear and conspicuous place in type of at least one-half (1/2) inch in height, and one-sixteenth (1/16) inch stroke (width of type).

Example: CPRD10 Co-Processed Renewable Diesel Fuel

5. Documentation for Dispenser Labeling Purposes. At the time of delivery of the fuel, the retailer shall be provided with a declaration of the volume percent biodiesel, renewable diesel, co-processed renewable diesel on an invoice, bill of lading, shipping paper, or other document. This documentation is for dispenser labeling purposes only; it shall be the responsibility of all potential blenders to determine the amount of biodiesel in the diesel fuel.
6. Documentation Content. Every shipment of B100 biodiesel and/or biodiesel blend, renewable diesel, co-processed renewable diesel produced or imported for sale into Mississippi shall be accompanied by an invoice, bill of lading, shipping paper or other documentation. This document shall identify the quantity, the name of the product, the particular grade or blend of the product, the name and address of the seller and the buyer, and the date and time of the sale.
7. In addition to the bill of lading, shipping paper, or other documentation of sale, all biodiesel B100 and/or biodiesel blend, renewable diesel, co-processed renewable diesel produced or imported for sale into Mississippi shall be accompanied by a certificate of analysis or a certificate of full specification analysis.
8. Shipments of biodiesel B100 and/or biodiesel blends, renewable diesel, co-processed renewable diesel which do not have a certificate of analysis shall not be imported into Mississippi. Biodiesel and/or renewable diesel, and/or co-processed renewable diesel produced in Mississippi which does not have a certificate of analysis or a certificate of full specification shall not be sold in Mississippi.

(Adopted 2009.)

113.04 Product Storage Identification. All filler pipes for petroleum bulk storage tanks and retail station storage tanks shall be identified by painting a sign on the intake pipe cap or within (6) inches thereof in lettering not less than (2) inches in height and not less than one-fourth (1/4) inch in width the following: for B100 biodiesel, the lettering "B100"; for biodiesel blends, the lettering "BXX" (XX indicating blend percentage); for renewable diesel blends, the lettering "RDXX" (XX indicating blend percentage); for co-processed renewable diesel the lettering "CPRDXX" " (XX indicating blend percentage). Nothing in this section shall apply to bulk storage tanks located at marine or pipeline terminals, nor prohibit "color coding" in addition to the lettering, where desired.

(Adopted 2009.)

113.05 Condemned Product and Illegal Acts. A stop-sale order as provided for in Miss. Code Ann. 75-55-37 shall be issued to retail establishment dealers for biodiesel and all biodiesel blends failing to meet specifications or when a condition exists that causes product degradation.

(Adopted 2009.)

113.06 Product Registration:

1. Required Information. All producers, importers, wholesalers, and retailers of biodiesel (B100) and biodiesel fuel blends and renewable diesel blends and co-produced renewable diesel blends must register every product imported, sold or offered for sale with the Commissioner on forms prescribed by the Commissioner 30 days prior to when the registrant wishes to engage in sales. All producers or importers of biodiesel (B100) are required to provide final proof of EPA registration as a producer of ASTM D 6751 quality B100. The registration shall include all of the following information required under the Mississippi Code 75-55-6.
2. Renewal. Registration is subject to annual renewal.
3. Re-registration. Re-registration is required 30 days prior to any changes in the required information.
4. Authority to Deny Registration. The Commissioner may decline to register any biodiesel B100 or biodiesel/petroleum diesel fuel blend, and/or any Renewable diesel, and/or any Co-Processed Renewable Diesel that actually or by implication would deceive or tend to deceive a purchaser as to the identity or the quality of these products.
5. Transferability. The registration is not transferable.

(Adopted 2009.)