

Application for the Establishment of a New Fuel Pathway under the California Low Carbon Fuel Standard

Instructions

Use the form below to apply for a new or modified fuel pathway under the Method 2A and 2B provisions of the California Low Carbon Fuel Standard (LCFS). Submittal of this form initiates the formal pathway evaluation process. Because that process is subject to strict time constraints, prospective applicants should discuss their proposals with Air Resources Board (ARB) staff prior to submitting a completed application form. Staff will advise potential applicants on the documentation that must be submitted along with this form. A list of LCFS Method 2A/2B staff contacts appears in the final section of this document. Submission of an incomplete application packet will result in delays, which could in turn lead to denial. This application form is to be submitted as a cover sheet to the full Method 2A or 2B application packet. A general list of the types of supporting information that must be submitted with a 2A/2B application appears in Section IV, of the application form

The full method 2A/2B application process is described in detail in a document entitled *Establishing New Fuel Pathways under the California Low Carbon Fuels Standard*. This is available at:

<http://www.arb.ca.gov/fuels/lcfs/012010newguideline.pdf>

Lifecycle analysis reports included with Method 2A/2B application packets should be similar in format, content, and scope to those already approved under the LCFS. Examples of approved life cycle analyses can be found at

<http://www.arb.ca.gov/fuels/lcfs/workgroups/workgroups.htm#pathways>

Applicants may designate portions of their submittals as trade secrets. All information so designated will be treated in accordance with 17 CCR §§ 91000-91022 and the California Public Records Act. In deciding on what information to designate as secret, applicants must consider the public nature of the rulemaking process. New and modified pathways can be approved only if enough information is available publicly to justify that approval.

Method 2A and 2B Application Form

I. Application Submission Date:

II. Company Contact Information

a. Company Name: **JB Ethanol Limited**

b. Mailing Address: **10025 N.W. 116 Way, Suite 14 Medley, FL 33178**

a. Corporate Address	McCook's Pen
City / Country	St. Catherine CSO
	Jamaica, W.I.
b. Mailing Address	
City	
State/Province	
Zip/Postal Code	

c. Main Company Phone Number: **Jamaica: 1 (876) 943 4370**

d. Secondary Company Phone Number: **USA: 1 (305) 887 4000**

e. Fax number: **Jamaica: 1 (876) 943 4012 USA: 1 (305) 887 4400**

f. Company Web Site URL: <http://www.jamaicabroilersgroup.com>

g. Primary Method 2A/2B Contact Person:

Name: **Thomas Rahn**

Position/Title: **Director**

Email Address: **trahn@wincorpintl.com**

Office Phone Number: **1 (305) 887 4000 ext 4115**

Mobile Phone Number: **1 (305) 613 0745**

Fax Number **1(305) 887 4400**

h. Consultant/Third Party Application Preparer:

Name: **Stefan Unnasch**

Position/Title: **Engineer**

*Affiliation/Firm: **Life Cycle Associates, LLC***

*Email Address: **unnasch@lifecycleassociates.com***

*Office Phone Number: **1.650.461.9048***

*Mobile Phone Number: **1.650.380.9504***

*Fax Number **1.484.313.9504***

*Consulting entity's web site URL **<http://LifeCycleAssociates.com/>***

- i. LCFS Reporting Tool Organization ID code (if known):
- j. U.S. Environmental Protection Agency (U.S. EPA) Company ID (if known):
- k. U.S. EPA Facility ID (if known):

III. Pathway Information

- a. Pathway application type. Applicants are encouraged to discuss their pathway application types with ARB staff before proceeding. Please check one box only.

Method 2A: Sub-pathway Method 2B: New Pathway

- b. Brief description of proposed pathway. Please emphasize the important innovations and/or distinctive characteristics associated with the proposed pathway or sub-pathway

This pathway involves the cultivation and harvesting of Brazilian sugarcane to produce hydrous ethanol in Brazil. Hydrous ethanol is transported from Brazil to the Caribbean basin for dehydration. The process energy for dehydration is provided by residual oil and electricity. The dehydrated ethanol is then shipped to California for use in vehicles.

The pathway for JB Ethanol Limited ethanol takes into account the energy inputs and emissions for ethanol dehydration and the additional transportation distance to Jamaica. The pathway results would be added to the results for the appropriate Brazilian sugarcane ethanol produced in Brazil depending on harvesting method and cogeneration in the ethanol facility.

c. For Method 2A Applications only

1. Reference pathway (Existing fuel pathway to which the proposed new sub-pathway is most closely related). The carbon intensity of the reference pathway must be higher by at least 5 gCO₂e/MJ than the carbon intensity of the proposed pathway described in this application. Show all pathway information exactly as it appears in the LCFS Lookup Table:

Fuel: Ethanol

Pathway Description: Brazilian sugarcane with average production process, mechanized harvesting and electricity co-product credit

Carbon Intensity Values (gCO₂e/MJ):

Direct Emissions: Dehydration: 5.86

Brazil Sugarcane ethanol pathways:

Baseline: 27.4 g/MJ

Mechanical harvest and cogeneration: 12.4 g/MJ

Average production with cogeneration: 20.4 g/MJ

Land Use or Other Indirect Effect: 46 (unless modified by ARB)

Total:

Baseline: 79.26 g/MJ

Mechanical harvest and cogeneration: 64.26 g/MJ

Average production with cogeneration: 72.26 g/MJ

2. Compositional differences (if any) between the fuel produced by the new sub-pathway and the reference pathway identified in item c, 1, above).

None.

- d. Final carbon Intensity of the proposed pathway or sub-pathway:
Baseline: 79.26 g/MJ
Mechanical harvest and cogeneration: 64.26 g/MJ
Average production with cogeneration: 72.26 g/MJ
- e. Annual volume of fuel that would be produced using the proposed new sub-pathway (millions of gallons per year [MGY]). **50,000,000 gallons**
1. This production volume is expected to be achieved within how many years from the start of production? **3 months**
 2. Does the applicant expect this volume be achieved by a single or by multiple facilities?
 A single facility Multiple facilities
 3. If the applicant expects this volume to be achieved by multiple facilities, would all facilities be owned by a single firm?
 Single firm Multiple firms
- f. Lower Heating Value of the fuel to be produced from new sub-pathway (megajoules per gallon): 73.3 MJ / gal
- g. The range of production volumes over which the proposed pathway carbon intensity value is valid. The values reported below must be supported in the documentation accompanying this application.

	Fuel Volume	Units (gallons; litres; joules,etc.)
Lower bound of production volume range	40,000,000	gallons
Upper bound of production volume range	120,000,000	gallons

- h. Please provide any information that may be helpful in determining the land use change impacts (if any) of the proposed pathway. Although it is ARB's responsibility to perform all land use change impact analyses, the applicant may provide any information that may be useful to the ARB in completing that analysis.

This process uses sugarcane produced in Brazil, using industry-accepted practices. This pathway should use the land-use change impacts of the ARB accepted Brazilian sugarcane ethanol pathways.

IV. Application Submittal Checklist. Listed below are the documents and files that may be submitted in support of a method 2A/2B application. Check the box to the left of each document or file type included in your submittal. After each submittal category is a check box labeled "includes trade secrets." Check that box if the submittal category contains any information the applicant considers to be a trade secret. In the actual submittal, the specific information falling into the trade secret category must be clearly marked. Additional information regarding the submission of trade secrets can be found in the Instructions above.

- Life cycle analysis report
 - Includes trade secrets*
- Engineering reports
 - Includes trade secrets*
- Equipment technical specifications
 - Includes trade secrets*
- Production process schematics, technical drawings flow diagrams, maps, or other graphical representations
 - Includes trade secrets*
- Technical papers or journal articles
 - Includes trade secrets*
- Emissions monitoring data or emissions modeling results
 - Includes trade secrets*

- Spreadsheets, data files, and similar files documenting the calculations behind the fuel life cycle analysis
 - Includes trade secrets*
- Other: In the space below, describe any additional submittals. Rationales for documents submitted or omitted may also be provided.
 - Includes trade secrets*

Bill of lading of ethanol shipments to show chain of custody for prior ethanol shipments.
 SGS certification of ethanol shipments, certificate of quality
 3 years data of fuel use
 Annual fuel bill
 Air emissions license
 Process data reports

ARB Method 2A and 2B Application Process Contacts

Name	Phone Number	E-mail Address
John Courtis	916-323-2661	jcourtis@arb.ca.gov
Wes Ingram	916-327-2965	wingram@arb.ca.gov
Chan Pham	916-323-1069	cpham@arb.ca.gov
Kevin Cleary	916-323-1009	kcleary@arb.ca.gov
Alan Glabe	916-323-2416	aglabe@arb.ca.gov