

Subchapter 10. Climate Change  
Article 4. Regulations to Achieve Greenhouse Gas Emission Reductions  
Subarticle 7. Low Carbon Fuel Standard

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§95481. Definitions and Acronyms

(tbd) “Alternative crude oil” means any crude oil extender that may be added to conventional petroleum-based crude oil and utilized at a refinery to produce finished fuels. Alternative crude oils may be derived from renewable biomass, waste-based materials, or other materials, and may contain petroleum chemical compounds.

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§ 95489. Provisions for Petroleum-Based Fuels. [from 95486(b) Table 8, page 67]

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(g) Alternative Crude Oil. A refinery or alternative crude oil producer may receive credit for alternative crude oils utilized to produce transportation fuels at a refinery.

(1) General Requirements.

- (A) The alternative crude oil must be utilized during or after the year 2015 and must be approved pursuant to this section before the refinery or producer can receive credit.
- (B) The refinery must utilize a minimum of 25,000 gallons of an approved alternative crude oil in a quarter for the credit to be available.
- (C) The refinery shall be deemed to have utilized the alternative crude oil on the date that the alternative crude oil is delivered to the refinery, or, in the event that the refinery upgrades the alternative crude oil at the refinery site, on the date that the refinery blends the alternative crude oil with its petroleum-based crude oil.
- (D) The refinery shall be deemed to have been accepted the alternative crude oil for blending with its petroleum crude oil upon delivery of the alternative crude oil to the refinery. In the event that the refinery later rejects the alternative crude oil or removes it from the refinery for any reason, the refinery shall document the quantity of rejected alternative crude oil and report it via the LRT. If any credit has been generated for that quantity of alternative crude oil, the credit shall be rescinded as prescribed by the Executive Officer.

(2) Application Contents and Submittal. Unless otherwise noted, an application for an alternative crude oil shall comply with the following requirements:

- (A) An application shall include a signed transmittal letter from the

Attachment RE: Refinery Investment Credit- Comment Supporting Expansion to Alternative Crude Oils, on behalf of Agilyx LLC, by Graham Noyes, [gnoyes@kfwlaw.com](mailto:gnoyes@kfwlaw.com), 916-668-4636

applicant attesting to the veracity of the information in the application packet and declaring that the information submitted accurately represents the greenhouse gas emissions profile of the alternative crude oil. The transmittal letter shall be the original copy, be on company letterhead, be signed by an officer of the applicant with authority to attest to the veracity of the information in the application and to sign on behalf of the applicant.

(B) All applications shall include a detailed description of the method used to produce the alternative crude oil. The description of the alternative crude oil must include (if applicable):

- i. Schematic flow charts that identify the system boundaries used for the purposes of performing the life cycle analyses on the proposed alternative crude oil. Each piece of equipment or stream appearing on the process flow diagrams shall be clearly identified and shall include data on its energy and materials balance. The system boundary shall be clearly shown in the schematic.
- ii. A description of all material and energy inputs entering the system boundaries, including their points of origination, modes of transportation, transportation distances, means of storage, and all processing to which material inputs are subject.
- iii. A description of all material and energy inputs relating to the transportation of the alternative crude oil to the refinery, including points of origination, modes of transportation, and transportation distances.
- iv. A description of all material and energy products, co-products, byproducts, and waste products leaving the system boundaries, including their respective destinations, transportation modes, and transportation distances.
- v. A description of all facilities within the system boundaries involved in the production of the alternative crude oil and other byproducts, co-products, and waste products.
- vi. A description of all combustion and electrical powered equipment within the system boundaries, including their respective capacities, sizes, or rated power, fuel utilization type, fuel shares, energy efficiency (LHV basis), and proposed use.

- vii. A description of all thermal and electrical energy production that occurs within the system boundaries, including the respective capacities, sizes, or rated power, fuel utilization type, fuel shares, energy efficiency (LHV basis), and proposed use.
- viii. A description of all sources of flared, vented and fugitive emissions within the system boundaries including the compositions of the flared, vented and fugitive emission streams leaving the system boundaries.
- ix. All applications shall include life cycle assessments performed on the proposed alternative crude oil production method and its comparison baseline method using the ARB OPGEE model or an alternative model or LCA methodology approved by the Executive Officer.

(C) Electronic copies of the models and calculations shall be provided. The descriptions of the life cycle assessment results must provide:

- i. Detailed information on the energy consumed and greenhouse gas emissions generated by production of the alternative crude oil;
- ii. Documentation of all non-default model input values used in the emissions calculation process. If values for any significant production parameters are unknown, the application shall so state and model default values shall be used for these parameters in the analysis;
- iii. Detailed description of all supporting calculations that were performed outside of the model; and,
- iv. Documentation of all modifications other than those covered by item (ii) above, made to the model. This discussion shall include sufficient specific detail to enable the Executive Officer to replicate all such modifications and, in combination with the inputs and supporting calculations identified in items (ii) and (iii) above, replicate the carbon intensity results reported in the application.

(D) All applications shall include a list of references covering all information sources used in the preparation of the life cycle analysis and/or calculation of alternative crude oil credit. All reference citations in the application shall include in-text parentheticals stating the author's last name and

date of publication. All in-text parenthetical citations shall correspond to complete publication information provided in the list of references, and complete publication information shall at a minimum, identify the author(s), author's affiliation, title of the referenced document, publisher, publication date, and pages cited. For internet citations, the reference shall include the universal resource locator (URL) address of the citation, as well as the date the website was last visited.

(E) All documents (including spreadsheets and other items not in a standard document format) that are claimed to contain confidential business information (CBI) must prominently display the phrase "Contains Confidential Business Information" above the main document title and in a running header. Additionally, a separate, redacted version of such documents must also be submitted. The redacted versions must be approved by the applicant for posting to a public LCFS web site. Specific redactions must be replaced with the phrase "Confidential business information has been deleted by the applicant." This phrase must be displayed clearly wherever CBI has been redacted. If applicant claims that information it submits is confidential, it must also provide contact information required in section 91011.

(F) An applicant that submits any information or documentation in support of a proposed alternative crude oil must include a written statement clearly showing that the applicant understands and agrees that all information in the application not identified as confidential business information is subject to public disclosure pursuant to CCR, title 17, sections 91000-91022 and the California Public Records Act (Government Code sec. 6250 et seq.), and that information claimed by the applicant to be confidential might later be disclosed under section 91022 if the state board determines the information is subject to disclosure.

(G) If the application is approved, the alternative crude oil producer must register under the LCFS as an opt-in regulated party before receiving LCFS credit. If the alternative crude oil producer does not intend to register as an opt-in regulated party, they must state so in writing, in which case the California refinery(s) that purchases the alternative crude oil may then claim the credit.

(H) An application, supporting documents, and all other relevant data or calculation or other documentation, except for the transmittal letter described in section 95489(f)(3)(C), shall be submitted electronically, such as via e-mail or an online-based interface, unless the Executive Officer has approved or requested another format.

(3) Application Approval Process. An application must be approved by the Executive Officer before the alternative crude oil can generate credits under the LCFS regulation.

(A) Within 30 calendar days of receipt of an application designated by the applicant as ready for formal evaluation, the Executive Officer shall advise the applicant in writing either that:

1. The application is complete, or
2. The application is incomplete, in which case the Executive Officer will identify which requirements of section 95489(g) have not been met. The applicant may submit additional information to correct deficiencies identified by the Executive Officer. If the applicant is unable to achieve a complete application within 180 days of the Executive Officer's receipt of the original application, the application will be denied on that basis, and the applicant will be informed in writing.

(B) After accepting an application as complete, the Executive Officer will post the application at <http://www.arb.ca.gov/fuels/lcfs/lcfs.htm>. Public comments will be accepted for 10 calendar days following the date on which the application was posted. Only comments related to potential factual or methodological errors may be considered. The Executive Officer will forward to the applicant all comments identifying potential factual or methodological errors. Within 30 days, the applicant shall either submit revisions to its application to the Executive Officer, or submit a detailed written response to the Executive Officer explaining why no revisions are necessary.

(C) If the Executive Officer finds that an application meets the requirements set forth in section 95489(g), the Executive Officer will take final action to approve the alternative crude oil. The Executive Officer may prescribe conditions of approval that contain special limitations, recordkeeping and reporting requirements, and operational conditions that the Executive Officer determines should apply. If the Executive Officer finds that an application does not meet the requirements of section 95489(g), the application will not be approved, and the applicant will be notified in writing, and the basis for the disapproval shall be identified.

(4) Credit Generation. For each approved alternative crude oil, credits may be generated as follows:

$$\text{Credits}_{\text{ACO}} (\text{MT}) = (\text{CI}_{\text{FOSSIL}} - \text{CI}_{\text{ACO}}) \times V \times E_{\text{ACO}}$$

$\text{Credits}_{\text{ACO}}$  means the amount of LCFS credits generated (a positive value), in metric tons, by the volume of alternative crude oil;

$\text{CI}_{\text{FOSSIL}}$  means the baseline crude average carbon intensity value set forth in the Lookup Table, in gCO<sub>2</sub>E/MJ;

$\text{CI}_{\text{ACO}}$  means the carbon intensity value, in gCO<sub>2</sub>E/MJ, of the alternative crude oil utilized by the refinery as determined by the Executive Officer;

$V$  means the volume of alternative crude oil utilized by the refinery in the quarter.

$E_{\text{ACO}}$  means the energy density of the alternative crude oil relative to the energy density of baseline crude oil, expressed as a percentage.  $E_{\text{ACO}}$  will be less than 100% for alternative crude oils that are less energy dense than baseline crude oil, and will exceed 100% for relatively energy dense alternative crude oils.

- (5) Recordkeeping. For each approved alternative crude oil that is being utilized at a refinery, the refinery must compile and retain records pursuant to section 95491(b) showing compliance with all limitation and recordkeeping requirements identified by the Executive Officer pursuant to section 95489(g)(3)(C), above.