



# LCFS Guidance

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## Low Carbon Fuel Standard (LCFS) Guidance 22-01(Revised)

### 2024 Annual Report Guidance

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## **A. Introduction**

The California Air Resources Board's (CARB) Low Carbon Fuel Standard (LCFS) regulation, which appears at sections 95480 to 95503 of title 17, California Code of Regulations, is designed to reduce greenhouse gas emissions associated with the life cycle of transportation fuels used in California.

CARB staff has prepared this guidance to facilitate annual reporting and verification for the 2024 reporting year due in 2025. Unlike the regulation itself, this document does not have the force of law. It is not intended to and cannot establish new mandatory requirements beyond those that are already in the LCFS regulation, nor can it supplant, replace, or amend any of the legal requirements of the regulation. Conversely, any omission or truncation of regulatory requirements does not relieve entities of their legal obligation to fully comply with all requirements of the regulation.

## **B. Contacts**

For questions about the following annual reports, please email [LCFSAnnualReport@arb.ca.gov](mailto:LCFSAnnualReport@arb.ca.gov) with the *subject line showing the report type below*.

- Annual Fuel Pathway Report (AFPR)
- Annual Report on Quarterly Transactions subject to Verification (QFTR)
- Annual Compliance Reports
- Annual Marketable Crude Oil Volume Report (Annual MCON)
- Project Report electing annual verification and crediting (Annual Project Report)
- Low-Complexity/Low-Energy-Use Refinery Report (LC/LEU)

For questions related to verification, please email [LCFSverify@arb.ca.gov](mailto:LCFSverify@arb.ca.gov).

For questions on specific LCFS program areas, see [LCFS Contacts](#) page.

## **C. Annual Report and Verification Deadlines**

Entities required to submit Annual Reports must submit by the reporting deadlines shown below. Verification reports from CARB- accredited Verification Bodies (VB) must be received by the verification deadline shown below.

Report Type	Annual Report Deadline	Annual Verification Deadline	Report Submission Method
<b>Annual Fuel Pathway Report (AFPR)</b>	April 1, 2025 <sup>1</sup>	September 2, 2025 <sup>2</sup>	<ul style="list-style-type: none"> <li>AFP AFPR Tab <sup>3</sup> (Primary Applicant)</li> <li>AFP Correspondence (Joint Applicant)</li> </ul>
<b>Annual Report on Quarterly Transactions Subject to Verification (QFTR)</b>		September 2, 2025	LRT Verification Tab
<b>Annual Compliance Report</b>	April 30, 2024		LRT Annuals Tab
<b>Annual Marketable Crude Oil Volume Report (MCON)</b>	April 30, 2025	September 2, 2025	LRT Verification Tab
<b>Annual Project Report</b>	April 30, 2025	September 2, 2025	LRT Verification Tab
<b>Low-Complexity/Low-Energy-Use Refinery Report (LC/LEU) Report</b>	April 1, 2025	September 2, 2025	LRT Verification Tab

**D. Quarterly Project Report and Verification Deadlines**

This section is applicable for Project Reports electing quarterly verification and credit generation. The deadline for submission of the verification statement is 5 months after the reporting deadline.

<sup>1</sup> This is a legally acceptable deadline date due to an official holiday on March 31 which is the regulatory deadline date listed in the LCFS regulation.

<sup>2</sup> This is a legally acceptable deadline date due to an official holiday on August 31 which is the regulatory deadline date listed in the LCFS regulation.

<sup>3</sup> See Low Carbon Fuel Standard [Alternative Fuels Portal \(AFP\) User Guide](#) on how to submit using AFPR tab and AFP Correspondence function.

2025 Quarter	Quarterly Report Deadline	Quarterly Verification Deadline	Submission Method
<b>Q1: January-March</b>	June 30, 2025	December 1, 2025	LRT Quarterly Report
<b>Q2: April-June</b>	September 30, 2025	March 2, 2026	LRT Quarterly Report
<b>Q3: July-September</b>	December 31, 2025	June 1, 2026	LRT Quarterly Report
<b>Q4: October-December</b>	April 1, 2026	August 31, 2026	LRT Quarterly Report

**E. Report Submission General Guidelines**

The following general guidelines are applicable for all report types described in Section C. Correctable errors discovered during verification must be addressed. A corrected report must be submitted to CARB and VB using the same method as the initial report submission.

Reports Submitted through the Alternative Fuels Portal (AFP)

- Primary Fuel pathway holders (primary applicants) will submit their AFPR directly through the AFP to CARB and the contracted VB simultaneously; see the Low Carbon Fuel Standard [Alternative Fuels Portal \(AFP\) User Guide](#) for more information.
- Joint applicants must submit the report through the AFP Correspondence feature of the system; **CARB will not transfer the data/reports between the entity and its VB. The reporting entity must provide the same report(s) submitted via AFP Correspondence directly to their VB.**

Reports Submitted to the LCFS Reporting Tool (LRT)

- Quarterly Fuel Transactions Reports and quarterly MCON reports are submitted through the LRT Quarterly Report to CARB; see the [LRT - CBTS User Guide](#) for more detail.
- Annual Project Reports, Annual MCON, and LC/LEU reports must be submitted via LRT Verification Tab. **CARB will not transfer the data/reports between the entity and its VB. The reporting entity must provide the same report(s) submitted via LRT Verification Tab directly to their VB.**

## **F. Report Submission Instructions**

### **1. Annual Fuel Pathway Report (AFPR)**

Fuel pathway holders of any Tier 1 or Tier 2 CA-GREET3.0 pathway certified before April 1, 2025, and deemed complete for reporting period Q4 2024, must submit an Annual Fuel Pathway Report.

Lookup Table fuel pathways with low-CI inputs must submit an Annual Fuel Pathway Report pursuant to section 95488.10(a). Lookup Table fuel pathways submitting an Annual Fuel Pathway Report are not subject to third-party verification requirements specified in section 95500.

A fuel pathway holder must submit an AFPR which must include, but is not limited to, carbon intensity (CI) calculator(s) and supporting documentation as specified in the Operating Conditions provided at the initial certification and any subsequent update, if applicable. The joint applicant, if any, must separately submit to CARB the required information for a given application.

#### Deferred Verification

- Fuel pathway holders producing alternative fuels may defer verification of their annual fuel pathway report for each production facility up to two years if the quantity of fuel produced at the production facility and reported by any entity does not result in 6,000 or more credits and 6,000 or more deficits generated in the LRT during the prior calendar year pursuant to section 95500(b)(2)(B).
- Any AFPR including a fuel pathway with biomethane supplied using book-and-claim accounting pursuant to section 95488.8(i)(2) is not eligible for deferred verification pursuant to section 95500(b)(2)(B).

#### **a) AFPR Reporting Requirements for Tier 1 and Tier 2 Applications**

##### Primary Fuel Pathway Holder (Primary Applicant)

The **primary fuel pathway holder** (primary applicant) is required to submit the following:

- A CARB-issued CI summary in Excel with operating conditions.
- Supporting documents as required by operating conditions.
- The reported operational CIs or indication that there is no fuel production to report.

- *If the verifier requires any modifications that result in a change to the operational CI, the Annual Fuel Pathway Report Operational CI must also be updated.*
- Number of operational months included for a given pathway including no production.
- Margin of safety value (CI in gCO<sub>2</sub>e/MJ) that will be added to the verified operational CI giving a higher CI for reporting. Any whole number and up to two decimal places can be provided for the margin of safety value, if no margin of safety is desired a 0 must be entered. The margin of safety value entered will increase the CI by that value reducing the potential for exceeding the CI. If no fuel production is selected then the margin of safety will be added to the previously certified CI.
  - *CARB recommends a margin of safety to avoid potential enforcement action for CI exceedance (see section 95488.10(a)(7)).*
- For first-time AFPR submissions: a previously certified carbon intensity (CI) calculator(s) updated with up to 24 months of operational data from the preceding two calendar years.
- For subsequent AFPR submissions: a previously verified calculator(s) as part of previous AFPR updated with 24 months of operational data from the preceding two calendar years.
  - However, there are two instances where the CI calculator will not have 24 months of operational data and fuel pathway applicants/holders should request applicable operating conditions from CARB to ensure clarity during verification.
    - *If the operational period in the previously certified calculator starts after January, as in a provisional fuel pathway, the calculator will not have full 24 months of data.*
    - *Operational data from the months after the sunset date are also not required in the CI calculator.*
- For pathways using book-and-claim accounting: the fuel pathway holder must submit the contracts and invoices required in section 95488.8(i)(2)(B) and an attestation regarding environmental attributes as specified in section 95488.8(i)(2)(C)2.

### Joint Applicants

The **joint applicant** is required to submit the following:

- An updated CI calculator that contains user-defined/site-specific values contributed by the joint applicant. The joint applicant is subject to the same

data reporting requirements for applicable site-specific data as listed above for primary applicants.

- Any supporting documents as required by operating conditions that are relevant to the applicant.

**b) AFPR Reporting Requirements for Lookup Table (LUT) Applications**

The fuel pathway holders of the following LUT pathways are required to submit annual fuel pathway reports to CARB. LUT reports are not subject to third party verification. See required documents below.

Fuel	LUT FPCs Required to Report	Required Documents
<b>Zero-CI electricity</b>	ELC037L0002019, ELC048L0002019	<ul style="list-style-type: none"> <li>• RECs retirement reports to satisfy requirements of 95488.8(i)(1).</li> <li>• For pathway holders with green tariff, submit documentation demonstrating the entities reporting under that pathway and the RECs reported by each entity for each reporting period.</li> </ul>
<b>Direct supply electricity</b>	ELC049L0002019,	<ul style="list-style-type: none"> <li>• Demonstration of direct supply to the fuel pathway. Examples include meter readings, photos, etc.</li> </ul>
<b>NG steam methane reforming (SMR) hydrogen</b>	HYG025L00072019, HYG031L00072019, HYL025L00072019, HYL031L00072019, HYG037L00072019, HYG039L00072019	<ul style="list-style-type: none"> <li>• Invoices or metering demonstrating that the volumes reported under the pathways are from the fuel production facility.</li> </ul>
<b>Renewable hydrogen with biomethane attributes</b>	HYG025L00072019 and HYL025L00072019	<ul style="list-style-type: none"> <li>• Demonstration of acquisition and retirement of attributes as required to submit to the verifiers as required under 95488.8(i)(2)(C) and 95500(c)(1)(D).</li> </ul>



### c) AFPR Submission Methods

#### Primary Fuel Pathway Holder (Primary Applicant)

The primary fuel pathway holder must use the **AFP Annual Fuel Pathway Report tab** to submit the report directly to CARB and the contracted VB.

Please see the [Alternative Fuels Portal \(AFP\) User Guide](#) for system details and report submission procedure.

#### Joint Applicant

This portion of the report must be submitted through the **AFP Correspondence** to CARB as an attachment with subject line accompanied by an attestation in the message body, as shown below. Items in grey must be replaced by your specific information. Note this also applies to cases where a primary fuel pathway holder (primary applicant) is also a joint applicant. **CARB will not transfer the data/reports between the joint applicant and its VB. The joint applicant must provide the same report(s) submitted to CARB directly to their VB.**



**Subject Line:** 2024 AFPR Joint Applicant Report Submission. Indicate application number(s) it is jointed with

**Body of Message:** I, John Smith, attest on behalf of [Company Name], that the attached AFPR Joint Applicant Report is also being provided to [VB Name] for 2024 verification. To the best of my knowledge, this report does not contain errors or omissions.

**Attachment:** Required documentation in a single zipped file.



For the **joint applicant, all documents must be zipped into a single file** and attached to the message. The attestation must be included in the body of the Correspondence message, not part of the zipped file.



Both the primary and joint applicants are separately responsible to ensure CARB receives the joint applicant annual report by the reporting deadline and that the selected VB receives the *same report* soon after.

## **2. Annual Compliance Report for Fuel Reporting Entities**

Fuel reporting entities are required to submit an Annual Compliance Report pursuant to section 95491(e) of the LCFS Regulation with aggregated quarterly fuel transactions data. The report must contain the following information for the annual compliance period:

- The annual summary generated by the LRT-CBTS which includes credit and deficit totals.
- For CARBOB, gasoline, and diesel fuel producers: the MCON or other crude oil name designation, amount in gallons, and Country or State of origin for each crude supplied to each refinery.
- For entities reporting bio-CNG, bio-LNG, and bio-L-CNG: an attestation regarding the environmental attributes for biomethane.
- The number of credits that the entity wishes to pledge for sale in the Credit Clearance Market.

Pending transfers must be completed prior to submitting the annual compliance report. If a pending outgoing transfer remains, credits that are part of the transfer may be taken from the account of the entity that initiated the transfer, and the annual compliance report will be automatically adjusted to reflect the correct credit balance. If an incoming transfer remains pending at the time of submission of the annual compliance report, then the report will be reopened automatically if the transfer is accepted, and the annual compliance report must be resubmitted with the adjusted credit balance.

Section 95485 of the LCFS Regulation requires a fuel reporting entity to retire a number of credits from its credit account that is equal to its compliance obligation. The compliance obligation is equal to the sum of deficits generated within the current compliance period and deficits carried over from prior compliance periods. The LRT-CBTS will automatically retire credits up to either the compliance obligation or the number of available credits in the entity credit account, whichever value is lower. If any fuel reporting entity does not retire sufficient credits to meet its compliance obligation, then a Credit Clearance Market may be held.

## **3. Fuel Reporting Entities with Quarterly Transactions Subject to Verification**

Fuel reporting entities who have submitted Quarterly Fuel Transactions Report to the LRT that include the following transaction types must obtain the verification services of a VB accredited by CARB for the purposes of conducting verification

services, including site visit(s) pursuant to section 95500(c). The scope of verification services is limited to the following transaction types:

- For liquid fuels: Production in California, Production for Import, Import, Export, Gain of Inventory, Loss of Inventory, and Not Used for Transportation.
- For non-liquid fuels: NGV Fueling, Propane Fueling, FCV Fueling for hydrogen produced from book-and-claim biomethane.

#### Deferred Verification

- Fuel pathway holders producing alternative fuels may defer annual verification of their Quarterly Fuel Transactions Reports for each production facility up to two years if the quantity of fuel produced at the production facility and reported by any entity does not result in 6,000 or more credits and 6,000 or more deficits generated in the LRT during the prior calendar year pursuant to section 95500(c)(2)(B).
- Fuel reporting entities only reporting alternative fuel quantities using Lookup table pathways may defer annual verification of their Quarterly Fuel Transactions Reports up to two years if they do not generate 6,000 or more credits and 6,000 or more deficits during the prior calendar year.
- Any fuel quantity reported under a pathway with biomethane supplied using book-and-claim accounting pursuant to section 95488.8(i)(2) is not eligible for deferred verification pursuant to section 95500(c)(2)(B).

#### Quarterly Fuel Transactions Verification Related to LUT Pathways using Specified Source Feedstocks

When a fuel pathway does not require third-party validation or verification, (e.g., Lookup Table pathways including hydrogen (gaseous and liquefied) from central SMR of biomethane) specified source feedstocks must be included in the scope of verification of the Quarterly Fuel Transactions Reports per section 95501(b)(4)(E) of the LCFS Regulation.

#### Exempt from Quarterly Fuel Transactions Report Verification

Pursuant to section 95500(c)(2)(C) of the LCFS Regulation, entities reporting fuel transactions as Export, Gain of Inventory, Loss of Inventory, and Not Used for Transportation, which do not result in 6,000 or more credits and 6,000 or more deficits generated in the calendar year are exempt from verification of the Quarterly Fuel Transactions Reports if all the following conditions are met:

- The entity did not report any liquid fuel using the transaction types: Production in California, Production for Import, or Import; and
- The entity did not report any transactions for NGV Fueling or Propane Fueling.

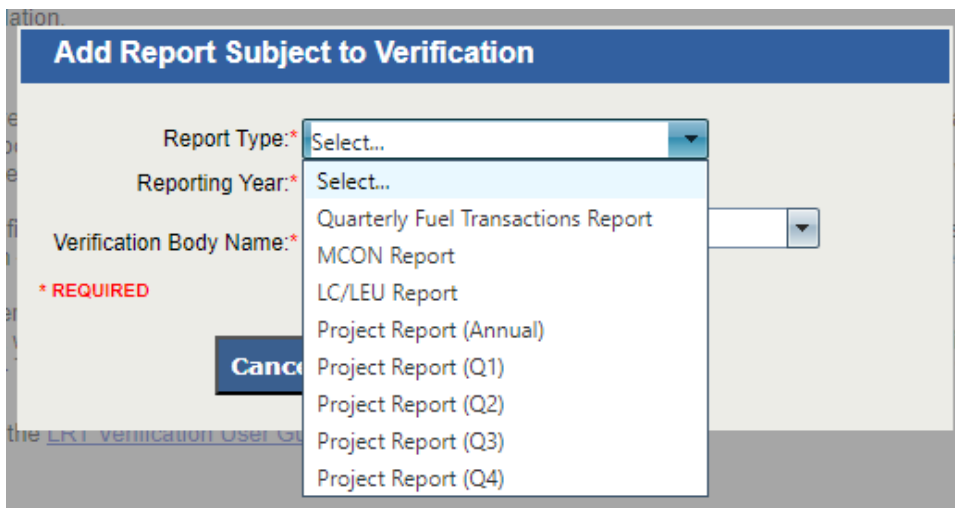
A notification to CARB is not required for verification exemptions, although a courtesy notification with specific transaction information may accelerate the deferral eligibility assessment. Entities that would like to request eligibility confirmation may email [LCFSVerify@arb.ca.gov](mailto:LCFSVerify@arb.ca.gov).

**a) QFTR Reporting Requirement:**

Quarterly Fuel Transactions Report(s) are submitted through the LRT to CARB according to regulatory deadlines and consistent with previous practice; see the [LRT - CBTS User Guide](#) for more detail.

**b) Annual Verification Report Submission Methods:**

The fuel reporting entities must use the **LRT Verification tab** to submit the report directly to CARB and the contracted VB.



Please see the [LRT Verification User Guide](#) for system details and report submission procedure.

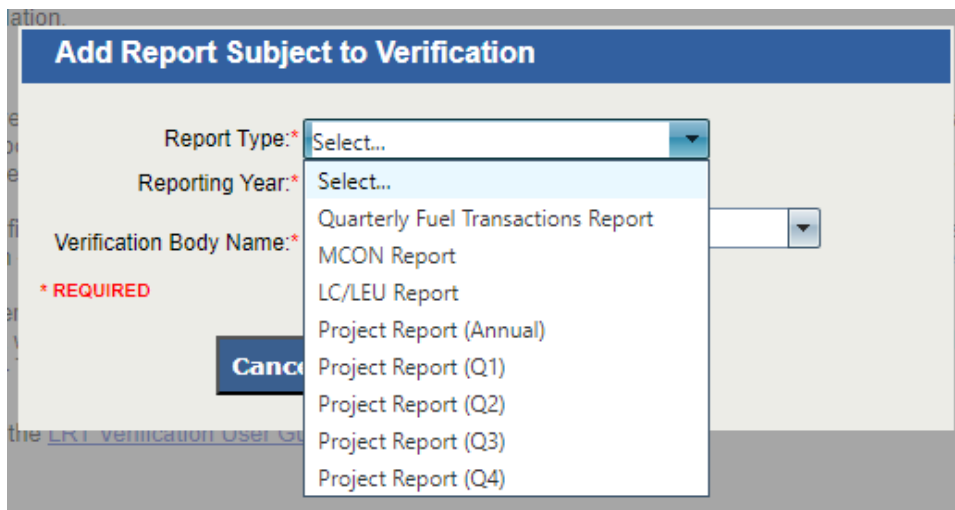
#### 4. Annual Marketable Crude Oil Volume (Annual MCON) Report

Entities submitting crude oil volume data must obtain the services of a verification body for purposes of conducting verification services, including required site visit(s), for Crude Oil Quarterly and Annual Volumes Reports.

##### Annual MCON Reporting Requirement:

For each refinery, a producer of CARBOB, gasoline, or diesel fuel must submit an annual MCON report including crude oil name, fuel quantity (in gal), and country (or State) of origin for each crude oil supplied to the refinery during the annual compliance period. All quarterly MCON reports submitted through the **LRT Quarterly Report function** will be compiled by the system when a reporting entity creates the annual MCON report for verification. The deadline for the annual MCON report submission is specified in Section D of this document.

The fuel reporting entities must use the **LRT Verification tab** to submit the report directly to CARB and the contracted VB.



Please see the [LRT Verification User Guide](#) for system details and report submission procedure.

## 5. Project Report

The following project operators and joint applicants must submit the Project Reports and obtain the services of a verification body for conducting verification services, including required site visit(s), for the Project Reports:

- Refinery Investment Projects,
- Innovative Crude Projects,
- Renewable Hydrogen Refinery Projects,
- Direct Air Capture Projects.

Entities submitting Project Reports may elect to conduct verification and credit generation quarterly or annually. Entities must determine before the initial verification of a Project Report whether to conduct quarterly or annual verification. If an entity elects to conduct quarterly verification, it may only switch to annual verification at the beginning of a calendar year.

### Project Report Reporting Requirement:

The reporting entity must submit primary data, documentation, attestation, and credit calculations as required in the CARB Staff Summary of the initial approval. See Staff Summary of [Approved Innovative Crude Projects](#) and [Approved Refinery Investment Projects](#).

A reporting entity must use the **LRT Verification tab** to submit the Project Report directly to CARB and the contracted VB and choose the correct report type from the drop-down menu provided. The deadline for the annual Project Report submission is specified in Section C of this document.

A reporting entity who elects *quarterly* verification and credit generation does not need to submit an annual Project Report; instead, the reporting and verification deadlines specified in Section D of this document must be followed.

Please see the [LRT Verification User Guide](#) for system details and report submission procedure.

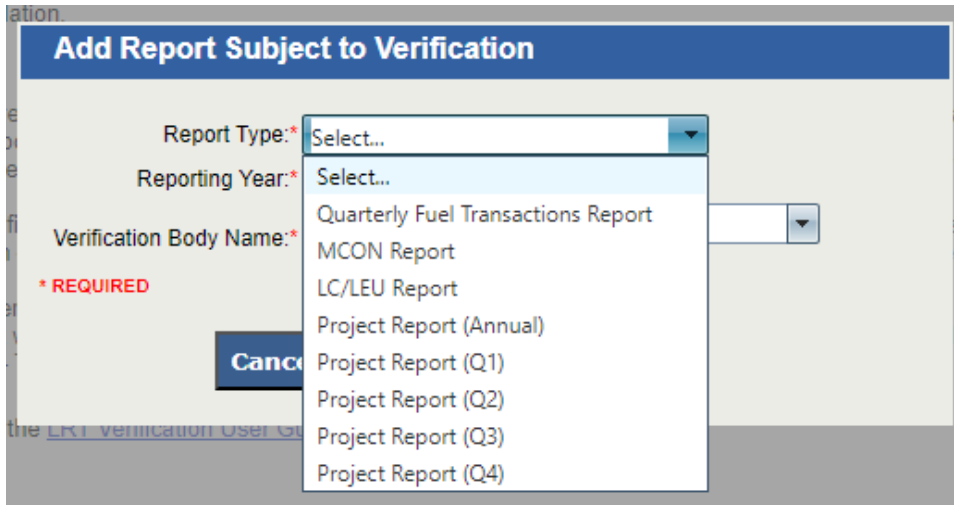
## 6. Low-Complexity/Low-Energy-Use Refinery Report (LC/LEU) Report

Entities submitting 2024 LC/LEU refinery data must submit an annual report to CARB by the deadline specified in Section C of this document and must obtain the services of a verification body for purposes of conducting verification services, including required site visit(s).

### LC/LEU Reporting Requirement:

- Eligibility review by CARB:
  - Calculation for the Modified Nelson Complexity Score
  - Refinery-wide energy use data including any parasitic load (e.g., refinery fuel gas)
- Data subject to third-party verification:
  - Volumes of fuels produced and purchased
  - Credit calculations

The fuel reporting entities must use the **LRT Verification tab** to submit the report directly to CARB and the contracted VB and choose the correct report type from the drop-down menu provided



Please see the [LRT Verification User Guide](#) for system details and report submission procedure.

## G. Verification

Verification statements must be submitted according to the Verification On-Line Tool functionality described in this document. **When report corrections are required during verification, LCFS entities and VBs must ensure that the final, corrected report has been submitted to CARB, that the Annual Fuel Pathway Report Operational CI was also updated in the online tool, if necessary, and that verification services were completed on the final, corrected version of the report.**

### 1. Annual Fuel Pathway Reports for Primary Fuel Pathway Holders (Primary Applicants)

Verification statements must be submitted through the Verification On-Line Tool by following the [Verification On-Line Tool User Guide](#).

### 2. Annual Fuel Pathway Reports for Joint Applicants


Reports/data must be submitted through the **AFP Correspondence** to CARB and the joint applicant must also provide the same report(s) directly to the VB. The



joint applicant must also provide the VB all application number(s) to which the joint application is attached.

**a) Confirmation of Receipt of Annual Reports**

VBs must send a confirmation email to [LCFSverify@arb.ca.gov](mailto:LCFSverify@arb.ca.gov) for each joint applicant. The confirmation email to CARB must contain the following information. Items in grey must be replaced by the relevant information.

 <b>Subject Line:</b> [verification body name] received [report type] from [contracted entity's name and LCFS ID (or FEIN)]
<b>Body of Message:</b> Report Receive Date Name of Reporting Entity Company ID or FEIN Data Year and Report Type <sup>4</sup> Application #(s) for which it is a Joint Applicant <sup>5</sup> Facility Name (if applicable) and Facility ID (if applicable) Verification Body Name COI (low/medium/high) COI Approval Date Same VB for prior Fuel Pathway Application or AFPR? (Y/N) <sup>6</sup>

**b) Verification Statement Submissions**

The VB receiving the annual report must complete the [LCFS Verification Statement Form](#) showing the verification outcome of a given report. The statement must be submitted along with the final verified report using the **Verification On-Line Tool Correspondence**. If no corrections were made to the original report, please indicate in the Correspondence message body that

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<sup>4</sup> The Report Type as shown in Instructions - Part I of the [LCFS Verification Statement Form](#).

<sup>5</sup> The VB can obtain the application number(s) from the joint applicant. The same joint applicant (facility) can be associated with multiple applications. Therefore, in such cases all application numbers must be mentioned in the confirmation email.

<sup>6</sup> Was your organization also contracted for validating fuel pathway applications or verifying prior AFPRs for either the primary or joint applicant that is submitting the AFPR?

no corrections were made to the original report. If corrections to the report were made, please indicate so in the Correspondence message.

The verification statement and the verified report must be zipped into a single file and the zipped file must be submitted as an attachment through the Verification On-Line Tool Correspondence with the following message format:



**Subject Line:** 2024 Verification Statement and Verified Report Submission

**Body of Message:** Submission of verification statement and verified entity's report for [contracted entity's name and LCFS ID (or FEIN)]. There were no corrections made to the original report.

Important: If corrections were made to the original report, please indicate so in the message.

Important: For joint applicants, include all fuel pathway application numbers for which it is a joint applicant.

### **3. Annual Reports on Quarterly Fuel Transactions Reports (QFTR), Quarterly and Annual Project Reports, Annual MCON Reports, and Annual LC/LEU Refinery Reports**

Please see sections O-Q of the [Verification On-Line Tool User Guide](#). The user guide describes in detail the system functionality of verification statement submission for annual reports on QFTRs. The same functionality also applies to quarterly and annual Project Reports, annual MCON Reports, and annual LC/LEU Refinery Reports.

For quarterly and annual Project Reports, annual MCON Reports, and annual LC/LEU Refinery Reports: In addition to the verification statement, VBs must submit the following documents as VB Supporting Documents:

- Verification report, including credit generation amount, if applicable; and
- Critical supplemental documents created and/or used for verification (e.g., Excel spreadsheets for analysis and credit calculations).
  - For MCON Reports, specifically:
    - If a reporting entity is responsible for the compliance of multiple refineries, verifiers must ensure each refinery is reported separately in the MCON, pursuant to section 95491(d)(1)(A)4.
    - Verification analysis of the crude volumes must be performed for each crude supplied to each refinery by its “crude identifier”, pursuant to section 95491(d)(1)(A)4, and this verification analysis cannot be replaced by the aggregated assessment of total crude volume.