



LCFS Guidance

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

2023 Annual Report Guidance

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A. Introduction

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

CARB has prepared this guidance to facilitate annual reporting and verification for the 2023 reporting year due in 2024. This document does not have the force of law. It does not 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. 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 with the *subject line showing the report type below*.

- Annual Fuel Pathway Report (AFPR)
- Annual Report on Transactions subject to Verification (QFTR)
- 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.

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 report deadlines shown below. Verification reports from CARB-approved Verification Bodies (VB) must be received by the verification deadline shown below.

Report Type	Annual Report Deadline	Annual Verification Deadline	Report Submission Method
Annual Fuel Pathway Report (AFPR)	April 2, 2024 ¹	September 3, 2024 ²	<ul style="list-style-type: none"> AFP AFPR Tab ³ (Primary Applicant) AFP Correspondence (Joint Applicant)
Annual Compliance Report	April 30, 2024	September 3, 2024	LRT Annuals Tab
Annual Marketable Crude Oil Volume Report (MCON)	April 30, 2024	September 3, 2024	LRT Verification Tab
Annual Project Report ⁵	April 30, 2024	September 3, 2024	LRT Verification Tab
Low-Complexity/Low-Energy-Use Refinery Report (LC/LEU) Report	April 2, 2024	September 3, 2024	LRT Verification Tab

¹ 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.

² 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.

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

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 verification statement is 5 months after the reporting deadline.

2024 Quarter	Quarterly Report Deadline	Quarterly Verification Deadline	Submission Method
Q1: January-March	July 1, 2024	December 2, 2024	LRT Quarterly Report
Q2: April-June	September 30, 2024	February 28, 2025	LRT Quarterly Report
Q3: July-September	December 31, 2024	June 2, 2025	LRT Quarterly Report
Q4: October-December	March 31, 2025	September 2, 2025	LRT Quarterly Report

E. Report Submission General Guidelines

The following general guidelines are applicable for all report types described in Section C. Substantive 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)

- Fuel pathway holders that are not joint applicants will submit their AFPR directly through the AFP to CARB and the contracted verification body simultaneously; see the Low Carbon Fuel Standard [Alternative Fuels Portal \(AFP\) User Guide](#) for more information.
- Joint applicants must submit the report through the 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) directly to both CARB and its VB.**

Reports Submitted to the LCFS Reporting Tool (LRT)

- Quarterly Fuel Transactions Report and quarterly MCON reports are submitted through the LRT Quarterly Report to CARB according to regulatory deadlines and consistent with previous practice; 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 manually between the entity and its VB, and the report submission will no longer be accepted using the LRT Correspondence for 2023 compliance year and beyond.**

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 2 of the current year and deemed complete for reporting period Q4 of the prior year or earlier, 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 Annual Fuel Pathway Report (AFPR) that includes, but is not limited to, carbon intensity (CI) calculator(s) and supporting documentation as specified in the Operating Conditions of the initial certification and, if applicable, updated prior to annual verification. 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

The **primary fuel pathway holder** (not a joint 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 (without a margin of safety).

- For first-time AFPR submissions: a previously certified carbon intensity (CI) calculator(s) updated with 24 months (January to December) 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.

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
Zero-CI electricity	ELC037L0002019, ELC048L0002019	<ul style="list-style-type: none"> • RECs retirement reports to satisfy requirements of 95488.8(i)(1). • 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.
Direct supply electricity	ELC049L0002019, ELC200, ELC203, ELC204, and ELC205	<ul style="list-style-type: none"> • Demonstration of direct supply to the fuel pathway. Examples include meter readings, photos, etc.
NG SMR hydrogen	HYG025L00072019, HYG031L00072019, HYL025L00072019, HYL031L00072019, HYG037L00072019, HYG039L00072019	<ul style="list-style-type: none"> • Invoices or metering demonstrating that the volumes reported under the pathways are from the fuel production facility.
Renewable hydrogen with biomethane attributes	HYG025L00072019 and HYL025L00072019	<ul style="list-style-type: none"> • 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).

c) AFPR Submission Methods

Fuel Pathway Holder (not Joint Applicants)

The 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. **CARB will no longer 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 the joint applicant's VB.**



Subject Line: 2023 AFPR Joint Applicant Report Submission

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 2023 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 Report on Transactions Subject to Verification (QFTR)

Fuel reporting entities who have submitted Quarterly Fuel Transactions Report to the LRT that include the following transaction types must obtain verification services of a verification body 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. 95501(b)(4)(E)

Exempt from verification

Pursuant to section 95500(c)(2)(C), 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.

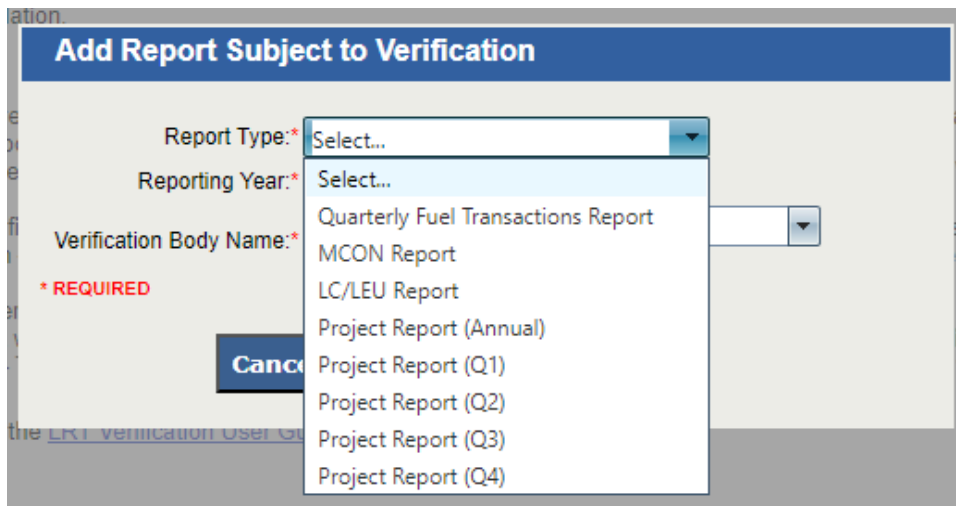
Notification to CARB is not required for verification deferrals or exemptions, although a courtesy notification with specific report information may accelerate the eligibility assessment. Entities that would like to request eligibility confirmation may email LCFSVerify@arb.ca.gov.

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.

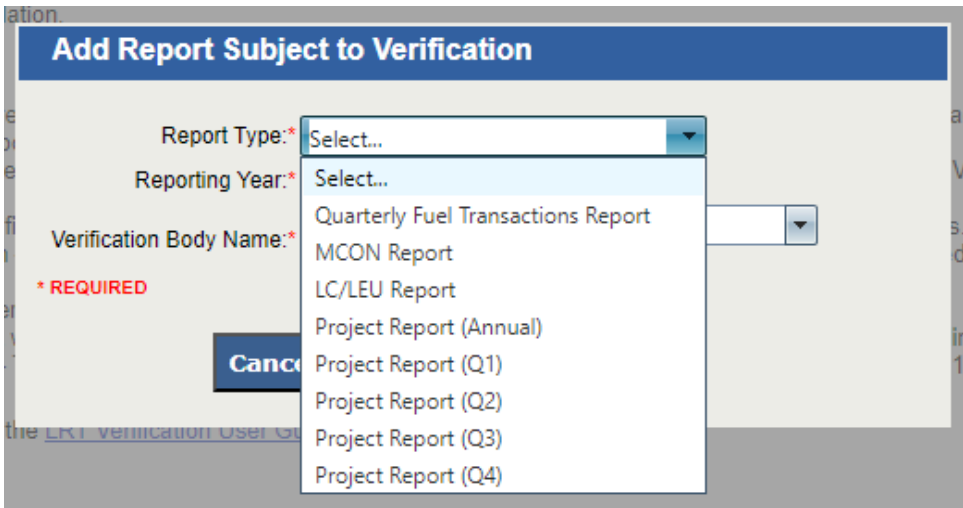
3. Annual Marketable Crude Oil Volume (Annual MCON) Report

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.

a) 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. **Submission of the annual MCON report is no longer done through the LRT Correspondence for 2023 compliance year and beyond.** 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.

4. 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, and
- Direct air capture projects.

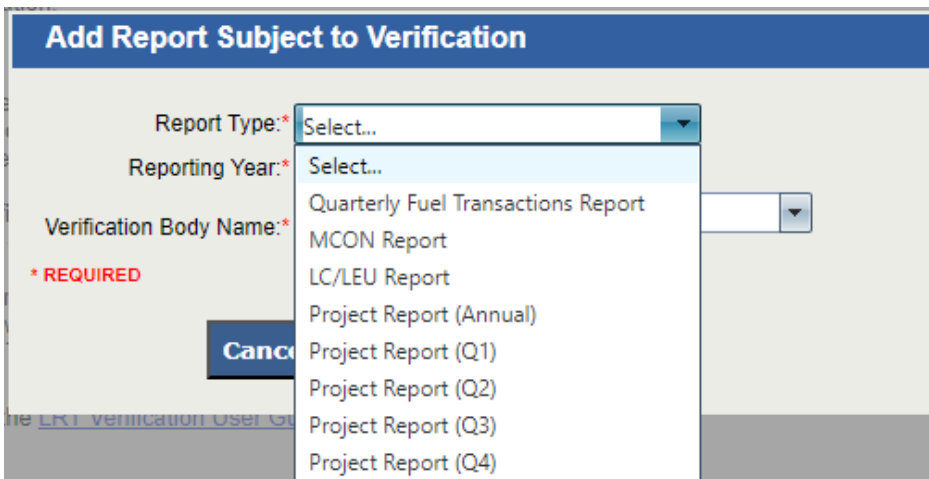
Entities submitting Project Reports may elect to conduct verification and credit generation quarterly or annually. Entities must determine before the initial verification of a Project Report whether to conduct quarterly or annual verification. If an entity elects to conduct quarterly verification, it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

a) 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](#).

Submission of the Project Reports, either annual or quarterly, is no longer done through the LRT Correspondence for 2023 compliance year and beyond. A reporting entity must use the **LRT Verification tab** to submit the Project Report directly to CARB and the contracted VB. The deadline for the annual Project Report submission is specified in Section D 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.



The screenshot shows a web form titled "Add Report Subject to Verification". The form has three main input fields: "Report Type:*" with a dropdown menu, "Reporting Year:*" with a dropdown menu, and "Verification Body Name:*" with a dropdown menu. A red asterisk and the word "REQUIRED" are positioned to the left of the "Verification Body Name" label. A blue "Cancel" button is visible below the "Verification Body Name" field. The "Report Type" dropdown menu is open, showing the following options: "Select...", "Quarterly Fuel Transactions Report", "MCON Report", "LC/LEU Report", "Project Report (Annual)", "Project Report (Q1)", "Project Report (Q2)", "Project Report (Q3)", and "Project Report (Q4)".

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

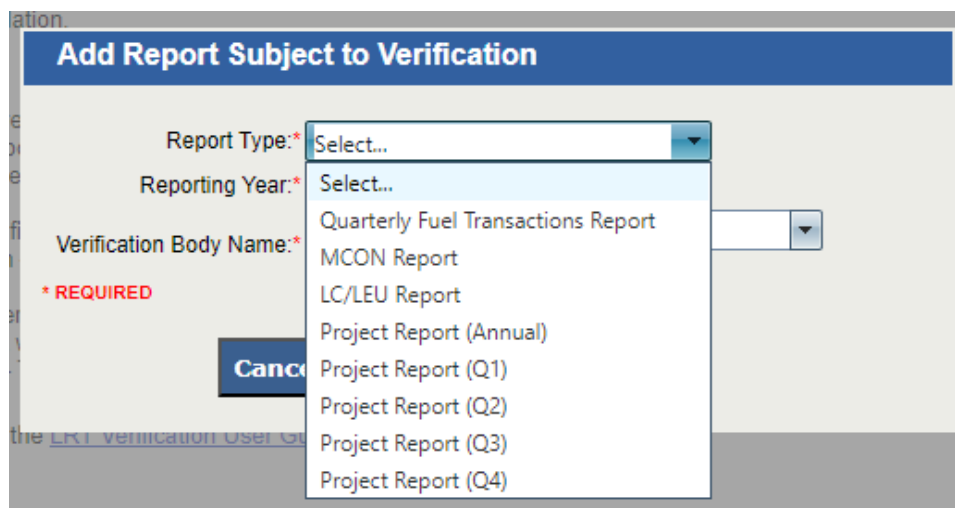
5. Low-Complexity/Low-Energy-Use Refinery Report (LC/LEU) Report

Entities submitting 2023 LC/LEU refinery data must submit an annual report to CARB by the deadline specified in Section D of this document and must obtain the services of a verification body for purposes of conducting verification services, including required site visit(s).

a) 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.

Submission of the LC/LEU Reports is no longer done through the LRT Correspondence for 2023 compliance year and beyond. 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.

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 and that verification services were completed on the final, corrected version of the report.**


1. Annual Fuel Pathway Reports for fuel pathway holders that are NOT joint 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

Since reports/data must be submitted through the **AFP Correspondence** to CARB and the joint applicant/reporting entity must provide the same report(s) directly to the VB, verification statements will be submitted to CARB as follows.

a) Confirmation of receipt of annual reports - VBs must send a confirmation email to 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 your specific information.


	Subject Line: [VB's company name] received [report type] from [contracted entity's name and LCFS ID (or FEIN)]
	Body of Message: Report Receive Date Name of Regulated Entity Company ID or FEIN Data Year and Report Type ⁴ If joint applicant, Application # for which it is a joint applicant 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? (Y/N) ⁵

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

⁵ Was your organization also contracted for validating fuel pathway applications for either the primary or joint applicant that is submitting the AFPR?

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, please indicate in the Correspondence message body that 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: 2023 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.
For joint applicant, include application no. for which it is a joint applicant.

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

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 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, CARB requests that VBs submit the following documents as VB Supporting Documents:

- Verification report, including credit generation amount if applicable;
- 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.