

Cement Producers Covered Product Data Reporting Guidance for California's Mandatory Greenhouse Gas Reporting Regulation

Introduction

This guidance is provided by the California Air Resources Board (CARB) to cement producers to comply with reporting of the covered product data¹ listed in section 95110(d) of the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (title 17, California Code of Regulations, section 95100 et seq.) (MRR). These covered product data must be reported annually through the California Electronic Greenhouse Gas Reporting Tool (Cal e-GGRT) along with greenhouse gas emissions data.

For additional information related to covered product data reporting, including the use of financial transaction records, how covered product data are evaluated during verification for accuracy and conformance with the regulation, and other topics, refer to the [General Covered Product Data Reporting Guidance](#) document.

This guidance document describes the requirements of MRR. This guidance document does not, and cannot, create or vary any legal requirements of MRR.

1 Cement Product Data

Cement plant operators are required to report annual quantities of clinker produced, clinker consumed, and limestone and gypsum consumed for blending pursuant to section 95110(d) of MRR. All of these products are covered product data. Cement operators must report covered product data in Cal e-GGRT using the input screen shown in Figure 1. Clinker consumed equals clinker produced or purchased minus clinker produced placed into storage or sold plus all clinker removed from storage used for on-site cement production. Clinker consumed may also be calculated using the sales data/inventory adjustment/lab analysis approach described in Methodology 2 in Section 2 of this document.

¹ "Covered product data" means all product data included in the allocation of allowances under sections 95870, 95890, and 95891 of the Cap-and-Trade Regulation, regardless of whether the Cap-and-Trade Regulation imposes a compliance obligation for the data year.

MRR also requires the reporting of cement production² and cement substitute consumed by type within Subpart H of Cal e-GGRT as shown in Figure 1. These data are not covered product data, and are therefore not subject to material misstatement assessment. Methods to report non-covered product data are not discussed in this document.

Figure 1: Cal e-GGRT Input Screen for Cement Production Data

ANNUAL PRODUCTION AND CONSUMPTION QUANTITIES	
Annual Cement production for the Facility	<input type="text"/> short tons
Annual Clinker production for the Facility (covered product data)	<input type="text"/> short tons
Annual Clinker consumed by the Facility (covered product data)	<input type="text"/> short tons
Annual Limestone consumed for blending (covered product data)	<input type="text"/> short tons
Annual Gypsum consumed for blending (covered product data)	<input type="text"/> short tons
CEMENT SUBSTITUTE #1	
Annual Cement substitute consumed by the Facility	<input type="text"/> short tons
Cement Substitute Type	<input type="text"/>

2 Cement Covered Product Data Reporting Methodologies

An operator may quantify covered product data using the methodologies provided below or equivalent methods. Regardless of which method is utilized, each measurement device or meter used must meet the accuracy and calibration requirements of section 95103(k). If inventory amounts are utilized, they must be verified as accurate to +/-5 percent pursuant to section 95103(k)(11). Amounts reported using financial transaction meters or records are considered to meet the accuracy requirements in 95103(k) if they meet the criteria for financial transaction meters in section 95103(k)(7). The method selected for quantifying covered product data cannot be changed without CARB approval, pursuant to the requirements in section 95103(m) of MRR. Although most sectors must exclude inaccurate covered product data, pursuant to section 95103(l) of MRR, covered product data from cement plants may not be excluded from reporting.

² Cement production data are reported to U.S. EPA as “annual facility cement production” under U.S. EPA, CFR title 40, section 98.86(a)(2).

Methodology 1 – Direct Measurement of Covered Product Data

Covered product data may be directly measured using a device that quantifies the mass of product being consumed or produced, such as a calibrated truck scale, belt scale, or weigh feeder. The operator may also periodically measure covered product quantities in storage using a tank drop or pile survey to measure volume and calculate mass using density and other conversion factors.

Methodology 2 – Cement Sales Data with Inventory Adjustment and Lab Analysis

Covered product data may be quantified using the amount of cement sold during the data year and back-calculating the products that went into making the cement sold using lab analysis and other chemical mass-balance measurements, but only if an inventory adjustment is made pursuant to section 95103(k)(11) for any covered product data that were not produced/consumed during the data year. Any back-calculation measurement techniques must be able to meet covered product data accuracy requirements. Factors that can affect the accuracy of these back-calculated data include whether the laboratory analytical data are accurate and complete, and whether the data are representative and unbiased, reflecting ongoing and typical annual operations and standard operating conditions. Documentation of any methods used and demonstration of how these methods meet the accuracy requirements of section 95103(k) must be included in the GHG Monitoring Plan for verifier or CARB review.

Financial transaction meters or records that are used to report covered product data are considered to meet the accuracy requirements in section 95103(k) if they meet the criteria for financial transaction meters in section 95103(k)(7). If financial meters or records are used, the operator must fully document the direct relationship between the financial data and the covered product data. Internal production reports and summaries that are not used as the basis for billing do not meet the requirements for financial transaction meter data, and therefore must meet the accuracy and calibration requirements in section 95103(k) if they are used for calculating and reporting covered product data. Measurements to determine each covered product reported must meet the accuracy requirements of section 95103(k). For more information related to financial transaction meters and records refer to the [Covered Product Data General Reporting Guidance](#) document.

If direct-calibrated weight measurements or financial transaction meter or records are not used to calculate clinker produced or clinker consumed, the operator may use a mass balance calculation along with analytical methods and other test data to back-calculate these values from the amount of cement sold, as long as an inventory adjustment is made to sales data to reflect cement produced in the data year. This

calculation should be documented in writing so that the reporter repeats the same method from year to year and in advance of the start of verification services so that the data can be verified. As mentioned above, the method selected for quantifying covered product data cannot be changed without CARB approval, pursuant to the requirements in section 95103(m) of MRR.

A chemical analysis may be performed to calculate how much limestone and/or gypsum was consumed for blending. This back-calculation from cement sales data (with an inventory adjustment) to calculate the amount of limestone and/or gypsum consumed for blending may be demonstrated to be accurate if sufficient documentation is provided showing that the cement sales data are accurate, how the calculation is performed, and that the chemical analysis data are accurate.

3 Additional Information

Detailed training materials for reporting using Cal e-GGRT: <https://ww2.arb.ca.gov/mrr-tool>.

The GHG Mandatory Reporting Regulation, with full requirements: <https://ww2.arb.ca.gov/mrr-regulation>.

Contact the MRR helpdesk: ghgreport@arb.ca.gov.

For help with reporting and verification, please contact the appropriate staff member: <https://ww2.arb.ca.gov/mrr-contacts>.