

INFORMAL DISCUSSION DRAFT 06/13/2014

June 13, 2014

Discussion Draft Potential Amendments to the Regulation for the Mandatory Reporting of Greenhouse Gas Emissions

Revisions for Product Data Reporting for Petroleum Refineries, Hydrogen Producers, and Onshore Petroleum and Natural Gas Producers

Background

In September 2014, the Air Resources Board (ARB or Board) is scheduled to conduct a public meeting to consider proposed amendments to California's existing Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (MRR) (title 17, California Code of Regulations, section 95100 et seq.). As part of the public process for this rulemaking, staff is providing this discussion draft of the potential amendments to sections 95113, 95114 and 95156. Potential changes are shown in ~~single strikeout~~ and single underline.

Stakeholders are invited to review and provide informal comments on these informal draft revisions by June 23, 2014. Comments can be electronically submitted at: <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>

Comments received on the potential revisions in this informal draft regulation will be considered in preparing the final MRR rulemaking package, but are not included as part of the official regulatory record. Prior to the September Board Meeting, staff will release a Hearing Notice, the Initial Statement of Reasons for the rulemaking, and the proposed regulatory text. These documents are scheduled for release on July 29, 2014, with the official comment period beginning on August 1, 2014.

Additional materials are also available here: <http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm>

§ 95113. Petroleum Refineries.

(I) Additional Product and Process Data.

- (1) *Finished Products.* The operator must report production quantities for the data year of each petroleum product listed in Table C-1 of 40 CFR 98, each additional transportation fuel product listed in Table MM-1 of 40 CFR Part 98 (standard cubic feet for gaseous products, barrels for liquid products, short tons for solid products), and calcined coke (short tons). The reported production quantity may not include material produced at a facility other than the reporting entity. When reporting production quantities, sales data may be used, but must be adjusted by the change in inventory during the data year to accurately reflect the amount of material actually produced during the data year. For calcined coke, specify whether the calciner is integrated with the petroleum refinery operation. For transportation fuel products listed in Table MM-1, the operator must report RBOB blendstocks as CARBOB, must specify the quantity of the fuel designated for use in California, and must report the designated amount (percentage) of oxygenate that will be blended with CARBOB. Among the products reported, only calcined coke and primary refinery products will be subject to review for material misstatement under the requirements of section 95131(b)(12). Primary refinery products will be evaluated for conformance and assessment of material misstatement through 2014 data year verifications. Beginning with 2015 data reported in 2016, primary refinery products will be evaluated for conformance only and will not be evaluated for material misstatement.

(3) Complexity Weighted Barrel (CWB) Calculation.

(C)

COC = The coke-on-catalyst volume percent reported to three significant figures and calculated by:

§ 95114. Hydrogen Production.

The operator of a facility who is required to report under section 95101 of this article, and who is not eligible for abbreviated reporting under section 95103(a), must comply with Subpart P of 40 CFR Part 98 (40 CFR §§ 98.160 to 98.168) in reporting emissions and other data from molecular hydrogen molecular production to ARB, except as

otherwise provided in this section. GHG emissions and output associated with hydrogen production must be reported separately from other emissions and output associated with a petroleum refinery.

(e) *Sampling Frequencies.* When monitoring GHG emissions as specified at 40 CFR §98.163, and reporting data as specified at §98.166, the operator must report the following:

- (1) Carbon, atomic hydrogen, and molecular hydrogen content for each feedstock using engineering estimates based on measured data as specified below:
 - (A) For gaseous feedstock the operator must use weighted average carbon content, atomic hydrogen content, and molecular hydrogen content from the results of one or more analyses for month n for natural gas or a standardized fuel or feedstock specified in Table 1 of section 95115, or from monthly analysis for other gaseous fuels and feedstocks such as refinery fuel gas;
 - (B) For liquid feedstock the operator must use weighted average carbon content and atomic hydrogen content from the results of one or more analyses for month n for a standardized fuel or feedstock specified in Table 1 of section 95115, or from monthly sampling for other liquid fuels or feedstocks;
 - (C) For solid feedstock the operator must use weighted average carbon content and atomic hydrogen content from the results of monthly sampling.

§ 95156. Additional Data Reporting Requirements.

Operators must conform ~~with~~to the data reporting requirements in section 95157 in addition to the data reporting requirements except as specified below. Sales records may be used to provide the data required by parts (a)(7)-(10), (b), (c) and (d) of this section for products that are produced and sold during the data year if the measurement system meets the criteria for financial transaction meters in sections 95103(k)(7)(A)(1) through 95103(k)(7)(A)(3). Inventory measurements may be used to provide covered product data required by parts (a)(7)-(10), (b), (c), and (d) of this section for products that are produced but not sold during the data year if the measurement system meets the measurement accuracy requirements of section 95103(k)(11). Any changes in product data reporting methodologies must conform to the requirements in 95103(m). Reporting entities may elect to exclude inaccurate product data pursuant to section 95103(l).

- (a) In addition to the data required by section 95157, the operator of an onshore and offshore petroleum and natural gas production facility must report the following data disaggregated within the basin ~~by each to the sub-facility level that lies within contiguous property boundaries:~~
 - (1) CO₂e emissions, including CO₂, CH₄, and N₂O as applicable for the source types specified in section 95152(c);

- (2) For combustion sources for which emissions are reported, fuel use by fuel type;
- (3) For cogeneration sources:
 - (A) Total thermal output (MMBtu);
 - (B) Net electricity generation (MWh);
 - (C) Amount of electricity generation (MWh) not consumed within the facility (i.e., exported offsite or to another facility owner/operator);
- (4) For steam generator sources:
 - (A) Total thermal energy generated (MMBtu) and the CO₂e emissions associated with this output;
 - (B) Thermal energy (MMBtu) not utilized within the facility (i.e., exported offsite or to another facility owner/operator) and the CO₂e emissions associated with this output;
- (5) For electricity generation sources not included in section 95156(a)(3):
 - (A) Net electricity generation (MWh) and the CO₂e emissions associated with this generation;
 - (B) Amount of electricity generation (MWh) not consumed within the facility (i.e., exported offsite or to another facility owner/operator) and the portion of CO₂e emissions associated with this generation;
- (6) Total steam (MMBtu) utilized but not generated at the facility and the CO₂e emissions associated with this output, if known;
- (7) Barrels of crude oil produced using thermal enhanced oil recovery. This ~~includes~~ means the volume of crude oil produced within the facility boundary during the data year, a volume which may include the crude oil fraction piped as an emulsion as defined in section 95102(a);
- (8) Barrels of crude oil produced using non-thermal enhanced oil recovery. This ~~includes~~ means the volume of crude oil produced within the facility boundary during the data year, a volume which may include the crude oil fraction piped as an emulsion as defined in section 95102(a);
- (9) MMBtu of associated gas produced using thermal enhanced oil recovery. This includes the associated gas fraction piped as an emulsion as defined in section 95102(a). Associated gas may be quantified using production or sales meters as appropriate. If using sales meters, associated gas may be quantified by multiplying the barrels of crude oil produced during the data year by a representative GOR measurement. If using the GOR approach, GOR measurements used for quantifying associated gas must be the most disaggregated data available (e.g., field or tank farm level);
- (10) MMBtu of associated gas produced using non-thermal enhanced oil recovery. This includes the associated gas fraction piped as an emulsion as defined in section 95102(a). Associated gas may be quantified using production or sales

meters as appropriate. If using sales meters, associated gas may be quantified by multiplying the barrels of crude oil produced during the data year by a representative GOR measurement. If using the GOR approach, GOR measurements used for quantifying associated gas must be the most disaggregated data available (e.g., field or tank farm level).

- (b) For dry gas production, the operator of an onshore petroleum and natural gas production facility must report its annual volume of dry gas produced (MMBtu).
- (c) The operator of a natural gas liquid fractionating facility, a natural gas processing facility, or an onshore petroleum and natural gas production facility with a natural gas processing plant that processes less than 25 MMscf per day must report the annual production of the following natural gas liquids in barrels corrected to 60 degrees Fahrenheit:
 - (1) Ethane
 - (2) Ethylene
 - (3) Propane
 - (4) Propylene
 - (5) Butane
 - (6) Butylene
 - (7) Isobutane
 - (8) Isobutylene
 - (9) Pentanes plus
 - (10) Natural gasoline
 - (11) Liquefied petroleum gas
 - (12) Bulk natural gas liquids not included in 95156(d)(1)-(11)

If a facility extracts natural gas liquids from produced gas, associated gas, or waste gas, and re-injects these natural gas liquids into barrels of crude oil produced at the same facility, the operator of such a facility shall report the amount of any re-injected natural gas liquids as covered product data pursuant to section 95156(a)(7) or (8). All other natural gas liquids produced at the facility should be reported as covered product data pursuant to section 95156(c).

- (d) Onshore natural gas processing facilities that have an annual average throughput of 25 MMscf per day or greater must also report the volume of associated gas, waste gas, and natural gas processed (MMBtu).