

**Appendix D to California's Compliance Plan for
the Federal Clean Power Plan:
Text of Emissions Standards and State Measures**

This appendix provides the text of the existing and proposed regulations that support this Compliance Plan. Those components are as follows:

Components of the Compliance Plan

Regulation¹	Summary	Status
17 CCR § 95160	Defines source category of affected EGUs for reporting	State reporting requirement for Compliance Plan
17 CCR § 95161	Adopts relevant CPP definitions for reporting	State reporting requirement for Compliance Plan
17 CCR § 95162	Monitoring and recordkeeping requirements for affected EGUs	State reporting requirement for Compliance Plan
17 CCR § 95163	Emissions and data reporting requirements for affected EGUs	State reporting requirement for Compliance Plan
17 CCR § 95859 and Appendix D	Establishes mass-based emission standards within the Cap-and-Trade Regulation and backstop emission standards for affected EGUs, provides interim and final targets, and requires compliance with relevant MRR provisions	Emission standards and federally enforceable reporting requirements
17 CCR §§ 95800-96022 (excluding § 95859 and Appendix D)	State-level Cap-and-Trade Regulations, including definitions of compliance periods.	State measure

This appendix includes the full text of proposed amendments to the Mandatory Reporting Regulation and the Cap-and-Trade Regulation that relate to the CPP (amendment additions are underlined). It also includes the existing text of those regulations. Further amendments to those regulations that do not include the CPP are not included.

Amendments to the Mandatory Reporting Regulation

Subarticle 6. Reporting Requirements and Calculation Methods for Electricity Generating Units Subject to the Clean Power Plan

§ 95160. Definition of Source Category and Applicability.

¹ Some of these regulations are being amended simultaneously with the finalization of this Compliance Plan. They are described in their amended form.

- (a) U.S. EPA Clean Power Plan Rule. This subarticle incorporates the following specific provisions of the U.S. EPA Clean Power Plan Final Rule, Subpart UUUU—Emission Guidelines for Greenhouse Gas Emissions and Compliance Times for Electric Utility Generating Units; 40 Code of Federal Regulations (CFR) Part 60, Subpart UUUU: 40 CFR sections 60.5845, 60.5850, 60.5860, and 60.5880, published in the Federal Register on October 23, 2015.
- (b) Each of the provisions of this subarticle become effective starting with 2021 data submitted in 2022, if U.S. EPA has approved, as memorialized by publication in the Federal Register and Code of Federal Regulations, that provision as part of California’s plan for compliance with the Clean Power Plan.
- (c) For the purposes of this article, the Clean Power Plan electricity generating unit source category consists of any affected EGU, which is a steam generating unit, integrated gasification combined cycle facility (IGCC), or stationary combustion turbine that commenced construction on or before January 8, 2014, and meets the relevant applicability conditions specified in Subpart UUUU of 40 CFR Part 60, §60.5845 paragraphs (b)(1)-(b)(3). EGUs excluded from being affected EGUs are specified in 40 CFR Part 60, §60.5850.
- (c) Any affected EGU is also subject to all other applicable requirements of this article, including but not limited to sections 95101 through 95108 and section 95112, except as modified in this subarticle. All affected EGUs are subject to the full verification provisions of this article.
- (e) Any affected EGU must comply with the emission estimation provisions of this subarticle, and must not use other emission calculation methods, such as those specified in section 95115.
- (f) Any affected EGU must separately monitor and report emissions and other data for each affected EGU, except as provided under section 95162(a)(4) of this subarticle. The provisions allowing unit aggregation specified elsewhere in this article do not apply to affected EGUs.
- (g) Affected EGUs remain subject to the provisions of this subarticle unless they undergo a complete and permanent shutdown, with a full cessation of all GHG-emitting processes and operations as specified in section 95101(h).

NOTE: Authority cited: Sections 38510, 38530, 39600, 39601, 39602, 39607, 39607.4 and 41511, Health and Safety Code. Reference: Sections 38530, 39600 and 41511, Health and Safety Code.

§95161. Definitions.

- (a) For the purposes of this subarticle, definitions specified in Subpart UUUU of 40 CFR Part 60, §60.5880 shall apply for affected EGUs. Should a conflict exist between definitions of this subpart, and definitions of section 95102 of this article, the definitions identified in this subarticle take precedence for affected EGUs.

NOTE: Authority cited: Sections 38510, 38530, 39600, 39601, 39602, 39607, 39607.4 and 41511, Health and Safety Code. Reference: Sections 38530, 39600 and 41511, Health and Safety Code.

§95162. Monitoring and Record Keeping Requirements

- (a) Owners and operators of affected EGUs must follow the applicable monitoring provisions of this section.
- (1) Affected EGUs must prepare a monitoring plan as specified in 40 CFR §60.5860(a)(1).
 - (2) For two or more affected EGUs which share a common exhaust gas stack, and are implementing continuous emissions monitoring per 40 CFR §60.5860(a)(3), and meet the requirements of 40 CFR §60.5860(a)(6), owners or operators may monitor CO₂ emissions at the common stack and calculate hourly net electric output for the common stack as specified in 40 CFR §60.5860(a)(6).
 - (3) For two or more affected EGUs in which exhaust gases are emitted to the atmosphere through multiple stacks (or if the exhaust gases are routed to a common stack through multiple ducts and you elect to monitor in the ducts), owners or operators must follow the provisions of 40 CFR §60.5860(a)(7).
 - (4) If two or more affected EGUs serve a common electric generator, owners or operators must comply with the provisions of 40 CFR §60.5860(a)(8).
- (b) The owner or operator of an affected EGU must maintain the following records for at least 10 years after the submission of each report, occurrence, measurement, maintenance, corrective action, report, or record, whatever is latest according to U.S. EPA Standards of Performance for New Stationary Sources, 40 Code of Federal Regulations (CFR) Part 60, Subpart A, Section 60.7, July 1, 2012, which is hereby incorporated by reference. The owner or operator of an affected EGU must maintain each record on site for at least 2 years, and may maintain the records off site and electronically for the remaining year(s).
- (1) Data as specified under the provisions of 40 CFR §60.5860(b)(1)-(3).
 - (2) Records as specified by 40 CFR §60.5860(c)(1) and 40 CFR §60.5860(c)(2)(i)-(iii) which includes data collected or used for calculations in applicable sections of 40 CFR §60.5860(a)-(b).

NOTE: Authority cited: Sections 38510, 38530, 39600, 39601, 39602, 39607, 39607.4 and 41511, Health and Safety Code. Reference: Sections 38530, 39600 and 41511, Health and Safety Code.

§95163. Emissions and Data Calculation and Reporting Requirements.

- (a) The owner or operator of an affected EGU must determine the CO₂ mass emissions (short tons) for the compliance period as specified under the provisions of 40 CFR §60.5860(b)(1)-(2).

- (b) The owner or operator of an affected EGU that exclusively combusts liquid fuel and/or gaseous fuel may determine the hourly CO₂ mass emissions according to 40 CFR §60.5860(a)(4)(i) through (a)(4)(vi).
- (c) The owner or operator of an affected EGU (or group of affected units that share a monitored common stack) must comply with all requirements of 40 CFR §60.5860(b)(3) for measurement and calculation of net electric output, useful thermal output, and mechanical output, and determine net energy output.
- (d) Each year, any affected EGUs must submit the information specified in 40 CFR §60.5860(d), paragraphs (1) and (3) to the Air Resources Board pursuant to section 95104(e) of this article, under the schedule specified in section 95103(e) of this article.

NOTE: Authority cited: Sections 38510, 38530, 39600, 39601, 39602, 39607, 39607.4 and 41511, Health and Safety Code. Reference: Sections 38530, 39600 and 41511, Health and Safety Code.

17 CCR §95163. Emissions and Data Calculation and Reporting Requirements.

- (a) The owner or operator of an affected EGU must determine the CO₂ mass emissions (short tons) for the compliance period as specified under the provisions of 40 CFR §60.5860(b)(1)-(2).
- (b) The owner or operator of an affected EGU that exclusively combusts liquid fuel and/or gaseous fuel may determine the hourly CO₂ mass emissions according to 40 CFR §60.5860(a)(4)(i) through (a)(4)(vi).
- (c) The owner or operator of an affected EGU (or group of affected units that share a monitored common stack) must comply with all requirements of 40 CFR §60.5860(b)(3) for measurement and calculation of net electric output, useful thermal output, and mechanical output, and determine net energy output.
- (d) Each year, any affected EGUs must submit the information specified in 40 CFR §60.5860(d), paragraphs (1) and (3) to the Air Resources Board pursuant to section 95104(e) of this article, under the schedule specified in section 95103(e) of this article.

Amendments to the Cap-and-Trade Regulation

§ 95840. Compliance Periods.

Duration of Compliance Periods is as follows:

- (d) If U.S. EPA has approved California's plan for compliance with the Clean Power Plan, as memorialized by publication in the Federal Register and Code of

Federal Regulations, then compliance periods starting January 1, 2021 shall be as follows:

- (1) The fourth compliance period starts on January 1, 2021, and ends on December 31, 2022.
 - (2) The fifth compliance period starts on January 1, 2023, and ends on December 31, 2024.
 - (3) The sixth compliance period starts on January 1, 2025, and ends on December 31, 2027.
 - (4) The seventh compliance period starts on January 1, 2028, and ends on December 31, 2029.
 - (5) The eighth compliance period starts on January 1, 2030, and ends on December 31, 2031.
 - (6) Each subsequent compliance period after the eighth compliance period has a duration of two calendar years.
- (e) If U.S. EPA has not approved California's plan for compliance with the Clean Power Plan by January 1, 2019, including the specified compliance periods in section 95840(d), then the fourth compliance period starts on January 1, 2021, and ends on December 31, 2023, and each subsequent compliance period has a duration of three calendar years.

NOTE: Authority cited: Sections 38510, 38560, 38562, 38570, 38571, 38580, 39600 and 39601, Health and Safety Code.

Reference: Sections 38530, 38560.5, 38564, 38565, 38570 and 39600, Health and Safety Code.

§ 95859. Federal Clean Power Plan Requirements.

- (a) The federal Clean Power Plan (CPP) means Subpart UUUU of 40 CFR Part 60 (40 CFR §§60.5700 to 60.5880) published in the Federal Register on October 23, 2015. The provisions of this section apply only if U.S. EPA has approved each provision as part of California's plan for compliance with the Clean Power Plan, as memorialized by publication in the Federal Register and Code of Federal Regulations.

- (b) General Requirements for Electricity Generating Units Subject to CPP (affected EGUs). Beginning January 1, 2021, and thereafter, all entities that own or operate at least one CPP EGU located in California must:
- (1) Be registered in the Cap-and-Trade Program pursuant to section 95830 regardless of annual emissions level and remain registered for the duration of CPP regardless of cessation, annual emissions level, or any other factor;
 - (2) Report and verify emissions pursuant to MRR sections 95160 to 95163; and
 - (3) Be in compliance with section 95856.
- (c) Deadline to Notify U.S. EPA of CPP Backstop Activation. By July 1 of the year after a compliance period ends, the Executive Officer shall compare the applicable aggregate reported emissions and assigned emissions for all affected EGUs for the compliance period to the applicable CPP backstop trigger established in Appendix D. If the applicable aggregate reported emissions and assigned emissions for all affected EGUs for the compliance period is greater than the applicable CPP backstop trigger established in Appendix D, then the Executive Officer shall inform U.S.EPA that the CPP backstop is activated pursuant to 40 CFR § 60.5870(b).
- (d) CPP Backstop Activation. By October 24 of the year after a compliance period ends, the Executive Officer shall compare the aggregate reported and verified emissions and assigned emissions for all affected EGUs for the compliance period to the aggregate CPP backstop trigger established in Appendix D. If the aggregate reported and verified emissions and assigned emissions for all affected EGUs for the compliance period is greater than the CPP backstop trigger established in Appendix D, then the CPP backstop is activated; otherwise the CPP backstop is not activated. The CPP backstop will apply to the compliance period $n+1$, the backstop compliance period, which immediately follows a triggering compliance period n , the triggering compliance period, in which the aggregate affected EGU emissions exceeded the CPP backstop trigger.
- (e) CPP Backstop. If the CPP backstop is activated pursuant to section 95859(d), then sections 95859(e)(1)-(8) shall apply.

- (1) Creation of CPP Backstop Account. The accounts administrator will create and maintain a holding account that is under the control of the Executive Officer and known as the CPP Backstop (CPPB) Account:
- (A) Into which the Executive Officer will transfer CPP allowances pursuant to section 95859(e)(4); and
- (B) From which the Executive Officer may transfer CPP allowances pursuant to sections 95859(e)(5) and (e)(8).
- (2) Creation of CPP Allowances. The Executive Officer shall create CPP allowances pursuant to section 95859(e)(4) and place these allowances into the CPPB Account. The Executive Officer shall assign each CPP allowance a unique serial number that indicates the compliance period allowance budget from which the allowance originates. CPP allowances are available only to entities that own or operate at least one affected EGU located in California.
- (3) CPP Backstop Compliance Obligation. Entities with at least one CPP EGU incur a CPP backstop compliance obligation for the compliance period $n+1$, the backstop compliance period, that immediately follows the compliance period n , the triggering compliance period, in which the aggregate affected EGU sector emissions exceeded the CPP backstop trigger. The CPP backstop compliance obligation in compliance period $n+1$ for an affected EGU equals the affected EGU's emissions for compliance period $n+1$ that are reported and verified pursuant to MRR sections 95160 to 95163 or the emissions for compliance period $n+1$ that are assigned by the Executive Officer.
- (4) Quantity of CPP Allowances Created in the CPPB Account. By October 24 of the year following a triggering compliance period, the Executive Officer shall create a number of CPP allowances calculated by the following equation and place them in the CPPB Account:

$$CPPB_{created,n+1} = T_{CPP,n+1} - (E_{sector,n} - T_{CPP,n})$$

Where:

“CPPB_{created,n+1}” is the number of CPP allowances with compliance period vintage n+1 created and transferred to the CPPB Account;

“E_{sector,n}” is the aggregate reported and verified emissions and assigned emissions for all affected EGUs, rounded up to the nearest whole metric ton value, for the triggering compliance period n in which the emissions exceeded the CPP backstop trigger;

“T_{CPP,n}” is the CPP glidepath target for the triggering compliance period n that is established in Appendix D; and

“T_{CPP,n+1}” is the CPP glidepath target for the backstop compliance period n+1 that is established in Appendix D.

- (5) Allocation of CPP Allowances. By October 24 of the year following a triggering compliance period, the Executive Officer shall allocate the number of CPP allowances from the CPPB Account to the holding account of each facility with an affected EGU that is calculated by the following equation:

$$A_{facility} = \frac{\sum_i E_{EGU,n,i}}{E_{sector,n}} \times CPPB_{created,n+1}$$

Where:

“A_{facility}” is the number of CPP allowances, rounded up to the nearest whole number, transferred from the CPPB Account to the holding account of a facility that owns or operates at least one CPP EGU located in California;

“E_{EGU,n,i}” is the reported and verified emissions or the assigned emissions in the triggering compliance period n for affected EGU i at the facility;

“ $E_{sector,n}$ ” is the aggregate reported and verified emissions and assigned emissions for all CPP EGUs for the triggering compliance period n in which the emissions exceeded the CPP glidepath target; and

“ $CPPB_{created,n+1}$ ” is the number of CPP allowances with compliance period vintage $n+1$ created and transferred to the CPPB Account pursuant to section 95859(e)(4).

- (6) Trading of CPP Allowances. CPP allowances may only be traded among entities that own or operate affected EGUs located in California and that are registered in the Program. Trading of CPP allowances must be conducted pursuant to section 95921.
- (7) Timely Surrender of CPP Allowances. Entities with at least one affected EGU must surrender one CPP allowance for each metric ton of emissions for the CPP backstop compliance obligation in section 95859(e)(3). Each entity must transfer from its holding account to its compliance account a sufficient number of CPP allowances to meet the CPP backstop compliance obligation established pursuant to section 95859(e)(3). Each entity must transfer sufficient CPP allowances to its compliance account to fulfill its CPP backstop compliance obligation by 5 p.m. Pacific Standard Time (or Pacific Daylight Time, when in effect) on November 1 of the calendar year following the final year of the backstop compliance period $n+1$.
- (8) Retirement of Remaining CPP Allowances. Any CPP allowances with compliance period vintage $n+1$ remaining in the CPPB Account after the CPP backstop compliance obligation deadline in section 95859(e)(7) shall be transferred to the Retirement Account by the Executive Officer.

NOTE: Authority cited: Sections 38510, 38560, 38562, 38570, 38571, 38580, 39600 39601, and 39602, Health and Safety Code.
Reference: Sections 38530, 38560.5, 38564, 38565, 38570 and 39600, Health and Safety Code.

Appendix D (to the Cap-and-Trade Regulation): CPP Glidepath Targets and Backstop Triggers from 2021 to 2031

<u>Year</u>	<u>Compliance Period</u>	<u>Annual CPP Glidepath Target# (MMTCO_{2e})</u>	<u>Full Compliance Period CPP Glidepath Target# (MMTCO_{2e})</u>	<u>CPP Backstop Trigger# (MMTCO_{2e})</u>
<u>2021</u>	<u>4</u>	Not applicable	<u>50.0</u>	<u>55</u>
<u>2022</u>		<u>50.0</u>		
<u>2023</u>	<u>5</u>	<u>49.4</u>	<u>98.3</u>	<u>108.2</u>
<u>2024</u>		<u>48.9</u>		
<u>2025</u>	<u>6</u>	<u>48.4</u>	<u>143.4</u>	<u>157.8</u>
<u>2026</u>		<u>47.8</u>		
<u>2027</u>		<u>47.3</u>		
<u>2028</u>	<u>7</u>	<u>46.7</u>	<u>92.9</u>	<u>102.2</u>
<u>2029</u>		<u>46.2</u>		
<u>2030</u>	<u>8</u>	<u>45.6</u>	<u>91.3</u>	<u>100.4</u>
<u>2031</u>		<u>45.6</u>		

For all two-year compliance periods after 2031, the CPP Glidepath Target is 91.3 MMTCO_{2e} and the CPP Backstop Trigger is 100.4 MMTCO_{2e}.