UPDATED INFORMATIVE DIGEST REGULATION TO IMPLEMENT THE CALIFORNIA LOW CARBON FUEL STANDARD PROGRAM

Existing law includes a Low Carbon Fuel Standard, referred to herein as the "2010 LCFS," comprised of California Code of Regulations (CCR), title 17, existing sections 95480, 95480.1, 95481, 95482, 95483, 95484, 95485, 95486, 95487, 95488, 95489, and 95490. The 2010 LCFS requires, by 2020, a 10 percent reduction in the carbon intensity (CI) of transportation fuels used in California. Carbon intensity under the 2010 LCFS was determined using the CA-GREET 1.8b model for all transportation fuels together with an estimated value for indirect land use changes associated with biofuel production derived from food-crop feedstocks..

The new "2015 LCFS" also requires a 10 percent reduction by 2020 in the carbon intensity of transportation fuels used in California, although the CI reduction standards for years between 2016 and 2019 have been adjusted. Carbon intensity under the 2015 LCFS is determined using version 1.1 of the OPGEE model (for upstream petroleum emissions), the CA-GREET version 2.0 models for all fuels (for direct emissions), together with an estimated value for indirect land use changes associated with biofuel production derived from food-crop feedstocks. The method for calculating indirect land use has also been updated as compared to the method used under the 2010 LCFS. The regulation sections have been re-arranged. Some additional new program features were added to streamline compliance and facilitate achieving the LCFS' carbon intensity reduction goal.

<u>Sections Affected:</u> Proposed repeal of California Code of Regulations (CCR), title 17, existing sections 95480, 95480.1, 95481, 95482, 95483, 95484, 95485, 95486, 95487, 95488, 95489, and 95490, and proposed adoption of CCR, title 17, sections 95480, 95481, 95482, 95483, 95483.1, 95483.2, 95484, 95485, 95486, 95487, 95488, 95490, 95491, 95492, 95493, 95494, 95495, 95496, and 95497.

Background: In 2006, the Legislature passed and Governor Schwarzenegger signed the California Global Warming Solutions Act of 2006 (AB 32; Stats. 2006, chapter 488). AB 32 creates a comprehensive program to reduce GHG emissions in California. In 2007, the Board approved a list of nine discrete early action measures, including a measure entitled, "Low Carbon Fuel Standard." The proposed regulation is designed to implement this measure pursuant to the requirements of AB 32 and Executive Order S-01-07.

The Board approved an LCFS regulation in 2009. The goal of the LCFS regulation was and is to reduce the carbon intensity of transportation fuels used in California by at least 10 percent by 2020 from a 2010 baseline. ARB approved revisions to the LCFS effective November 26, 2012.¹

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¹ The current and complete regulatory text is available at http://www.arb.ca.gov/fuels/lcfs/CleanFinalRegOrder 112612.pdf.

On July 15, 2013, the State of California Court of Appeal (Court) issued its opinion in *POET, LLC v. California Air Resources Board* (2013) 218 Cal.App.4th 681, ruling that the LCFS approved in 2009 and implemented in 2010 ("2010 LCFS") would remain in effect and that ARB could continue to implement and enforce the 2013 regulatory standards while taking steps to address California Environmental Quality Act (CEQA) and Administrative Procedure Act (APA) issues identified in the ruling. To address those issues, ARB set aside the existing LCFS regulation and re-adopted an LCFS regulation.

Description of the Regulatory Action:

Overview

The initial proposal was thoroughly described in the Notice of Proposed Rulemaking² and the Staff Report: Initial Statement of Reasons for Proposed Rulemaking³, both released on December 30, 2014.

After the February 19, 2015 Board Hearing, the Air Resources Board released three sets of 15-day changes for public comments and these changes are summarized below. The changes identified below were necessary to improve the clarity in the LCFS regulation as adopted and to ensure the regulation would accomplish its goals to reduce transportation fuel carbon intensity, while incentivizing the development and use of innovative fuels that are cleaner than existing petroleum-based fuels.

Summary of First 15-Day Modifications:

- 1. In section 95481, a number of definitions were added, deleted, or modified, including but not limited to: a new definition for "Account Administrator"; modified definitions for "Biodiesel," "Biodiesel Blend," "Biogas," "Bio-CNG," "Bio-LNG," "Bio-L-CNG," "Biomass," "Biomethane," "Fuel Pathway Code," "Production facility," "Renewable Hydrocarbon Diesel," and "Transaction Type"; modified definitions to provide updated models or model information for "AEZ-EP Model," "Blendstock" (updating CA-GREET2.0 T-1 and T-2 models), "GTAP" or "GTAP Model," and "OPGEE" or "OPGEE Model"; and deletion of previously proposed definitions for "B100," "Biofuel Production Facility," "LRT-CBTS Reporting Deadlines," and "Multimedia evaluation."
- 2. In section 95483(a)(2), removed the requirement that the recipient "producer or importer" of a fuel transfer be required to notify the transferor whether the recipient is a producer or importer for purposes of establishing compliance obligation and regulated party. The recipient "producer or importer" of California Reformulated Gasoline Blendstock for Oxygenate Blending (CARBOB), Diesel Fuel or Diesel Fuel Blends will no longer automatically become the regulated party as indicated in the previous regulation order. This has been seen as an

http://www.arb.ca.gov/regact/2015/lcfs2015/lcfs15notice.pdf

http://www.arb.ca.gov/regact/2015/lcfs2015/lcfs15isor.pdf

- unnecessary and complicated provision.
- 3. In section 95483(a)(3), included gasoline in the subsection.
- 4. In section 95483(e), defined and clarified the primary and alternate parties eligible to generate credits for electricity used as fuel.
- 5. In section 95483(f), 95486(b)(3)(D), and 95491(a)(3)(E), the original proposal allowed regulated parties to generate credits for hydrogen used in on-road vehicles only. An increase in hydrogen fuel cell forklift use coupled with a decrease in internal combustion engine (ICE) forklift use is expected to result in decreased GHG emissions and contribute to meeting the goals of the LCFS program. Hydrogen fuel cell forklifts were made eligible to generate credits. Providing another opportunity for credit generation from use of hydrogen as a transportation fuel supports the overall purpose of the LCFS to reduce the carbon intensity of the transportation fuel pool in California, reduce California's dependence on petroleum, create a lasting market for clean transportation technology, and stimulate the production and use of alternative, low-carbon fuels. The efficiency of hydrogen fuel cell forklifts was analyzed based on a study published by Argonne National Laboratory.⁴ The energy economy ratio (EER) was calculated by comparing the power train energy use of liquefied petroleum gas (LPG) ICE forklifts to that of hydrogen fuel cell forklifts. Staff proposes to use the EER value of 2.1 for hydrogen fuel cell forklifts.
- 6. In sections 95484(b) and (c), as work has progressed since the release of the Initial Statement of Reasons (ISOR) to refine the carbon intensities (CIs) used in the LCFS, three changes have resulted in a recalculation of values that affect the annual LCFS standards for 2016 and beyond.

The first involves changes in the CI for natural gas used in refineries. This change reduces the CI of CARBOB and diesel by approximately 0.05 gCO₂e/MJ. The second change is a correction in the estimate of the CI used for the crude oil that was refined in California in 2010. This change reduces the average CIs of CARBOB and diesel by approximately 0.73 gCO₂e/MJ. The third change results from a recalculation of the source of ethanol used in California in 2010. Current information indicates that a 5/95 percent mix of California/Midwest ethanol production was used in 2010. This replaces the 12/88 percent mix assumed in the ISOR. This change increases the average CI of the 2010 California reformulated gasoline (CaRFG) by approximately 0.04 gCO₂e/MJ.

The changes in values for the 2010 baseline fuels from the ISOR to the proposed 15-day changes are shown below:

- The CI for CARBOB changed from 100.58 to 99.78
- The CI for diesel changed from 102.82 to 102.01
- The CI for CaRFG changed from 99.18 to 98.47

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⁴ Argonne National Laboratory 2008, Full Fuel-Cycle Comparison of Forklift Propulsion Systems http://www.transportation.anl.gov/pdfs/TA/537.pdf

- The 2010 CIs for CARBOB, diesel, and the ethanol mix used in California become the basis for the LCFS annual performance standards. The percent reductions in CI that were proposed in the ISOR (2.0, 3.5, 5.0, 7.5 and 10.0 percent in 2016, 2017, 2018, 2019 and 2020, respectively) have been applied to the base year CIs to calculate the annual standards.
- 7. The 2010 baseline CIs are used in the regulation to define the targeted ten percent reduction in fuel CI by 2020, as well as the increments of progress between 2016 and 2020.
- 8. In section 95485(b)(2), the definitions of deficit and credit types were revised to provide clarity in how credits and deficits relate to the compliance period upon calculation in the reporting tool.
- 9. In section 95485(c)(3)(E), the cost containment market requires that regulated parties that pledge credits for sale must accept any offer to purchase credits at that year's maximum price. In response to stakeholder comment, this section was clarified to indicate that credits that have already been sold or credits that have been contractually agreed to be sold are exempt from this requirement, as they cannot be sold more than once.
- 10. In section 95485(c)(5), as an incentive to retire deficits more quickly, the proposed regulation imposes an interest charge on accumulated deficits that are not repaid within a year from the date the deficit was carried over. However, staff analysis of the proposed language indicates that a regulated party with such an obligation could avoid interest on accumulated deficits by using credits needed for current year compliance to retire deficits carried over from a previous compliance period. This section was clarified to indicate that accumulated deficits cannot be retired unless the regulated party has fully met its current year compliance obligation.
- 11. In section 95485, subsection (d) was changed to limit credits generated from sections 95489(f) and (g). The credits generated from sections 95489(f) and (g) are new pilot provisions. Therefore, limits are being set on the credits generated from sections 95489(f) and (g) in section 95485(d) to allow staff time to evaluate the credit potential from these provisions and prevent any unanticipated impacts if the volumes of these credits outstrip current expectations.
- 12. In section 95486(a)(4)(A), the deadline for completing a carryback credit transfer in the LCFS Reporting Tool and Credit Bank & Transfer System (LRT-CBTS) was made consistent with credit transfer provisions elsewhere in the regulation. The language in this section would require that the timeframe for completing a carryback credit transfer from the date of initiation be 10 days. This eliminates the April 15th date for completing a credit carryback transfer as currently proposed.
- 13. In section 95486(a)(4)(B), the original proposal limits the use of carryback credits to parties that can acquire sufficient carryback credits to meet one hundred percent of their prior compliance year obligation. Based on concerns that (1) this unnecessarily eliminates the use of such credits to minimize a shortfall in compliance, and (2) the proposed limitation could adversely affect the credit market by increasing competition for limited numbers of credits during the carryback period and producing short-term price spikes in credit prices, the

- regulation proposal was revised to allow a party to use carryback credits to meet a portion of its compliance shortfall so long as the party minimizes its shortfall by also retiring all credits it possess that are eligible for use in the prior compliance year.
- 14. In section 95486(b)(1), Table 3, the original proposal provided a value for the energy density of natural gas which was later determined to be inconsistent with the reference conditions given in the California Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation version 2.0 (CA-GREET 2.0) model. The value has been adjusted to the reference conditions, 32°F and 1 atm. The unit (scf) was changed to eliminate confusion between industry "standard cubic feet" and the reference conditions used in the CA-GREET 2.0 model. Pure methane was added to the table for use with biomethane, which may contain variable concentrations of methane. "CNG" was changed to "Natural Gas" because the given energy density is at a reference temperature and pressure (1 atm), which does not correspond to compressed natural gas. "Undenatured Anhydrous Ethanol" was added to the table to eliminate confusion: the CA-GREET 2.0 model specifies and uses the energy density of undenatured anhydrous ethanol to calculate the CI of denatured ethanol, while the Denatured Ethanol value may be useful for reporting or compliance purposes.
- 15. In section 95486(c), Credit Generation Frequency has been revised to align the current accounting system with how the LCFS Reporting Tool is handling quarterly reports. Regulated parties have the ability to review their business partners' transactions related to their company and reconcile the data in a timely manner.
- 16. In section 95487(b)(1), removed subsection (C) as part of eliminating the 90 percent compliance provision in the 2010 LCFS. Therefore, parties will only determine whether they are compliant or not.
- 17. In section 95488, combined the Tier 2 Lookup Tables (Tables 6 and 7, formerly Tables 5 and 6) to one table (Table 6) since the CIs of the CNG, electricity, and hydrogen groups are the same on both tables for gasoline (CARBOB) and diesel (ULSD) substitutes.
- 18. Changes were made in section 95488(a)(3), (c)(5), and (e)(5), because the proposal will result in the need for staff to recertify approximately 270 existing fuel pathways before they expire on January 1, 2017. Staff proposes a system for prioritizing that work and eliminating potentially unrealistic deadlines in various parts of the existing proposal. The pathway renewal process will result in fuel providers obtaining different carbon intensity scores, some higher, some lower, than are currently assigned. Specifically, staff proposes to review and approve fuel pathway applications in batches based on fuel type, so that providers of the same fuel compete on equal terms, obtaining the new carbon intensity score at the same time. The proposed prioritization of fuel types (the order in which the renewals will be completed) would be: ethanol, followed by biodiesel, renewable diesel, compressed natural gas, liquefied natural gas, and finally all others.
- 19. In section 95488(b)(3) and (c), carbon intensity determination for any fuel pathway includes the sum of direct CIs (from CA-GREET 2.0 or equivalent) and

- an indirect land use change modifier (if applicable) or other indirect carbon intensity (if applicable). In the ISOR and proposed regulation text, the inclusion of iLUC values was referenced and understood to be part of the proposal, but the iLUC values were not explicitly included as a table in the regulation. Express iLUC values for 6 biofuels in Table 5 are included. The fact that the total carbon intensity is the sum of direct CI and (if applicable) iLUC or other indirect CI was also made more clear.
- 20. In section 95488(c), revised the CI values in Tables 6 and 7 (formerly Tables 5, 6, and 7) based on updates to the CA-GREET 2.0 model.
- 21. In sections 95488(c)(1) and (c)(4)(I)(10), identified the Tier 1 and Tier 2 web portal by URL http://www.arb.ca.gov/lcfsrt and changed the name of the LCFS Producer Legal Responsibility Letter to LCFS Fuel Producer Attestation Letter so that the same letter can be identified and used in both the Alternative Fuel Registration System as well as Tier 1/Tier 2 applications. Staff also added a new requirement for online account registration prior to submitting a New Pathway Request Form.
- 22. In section 95488(c)(2)(C), specific language for the fuel producer attestation was added to the proposed regulation.
- 23. In section 95488(c)(5)(G), clarified the requirements apply to new Tier 1 fuel pathway certification as well as recertification for all the existing fuel pathway process.
- 24. In section 95488(c)(5)(H), extended the number of days allocated for public comments. Under the Tier 2 pathway application, "10 calendar days" was changed to "10 business days" in response to comments received from non-governmental organizations and based on staff experience with comments received on pathway applications.
- 25. In section 95488(d)(2), included Tier 1 fuel producers that apply for a provisional pathway. Tier 1 fuel producers were unintentionally excluded from the "provisional pathways" provision in the original proposal. As a result of the proposed change, Tier 1 fuel producers would receive the same treatment as Tier 2 fuel producers with respect to provisional pathways (if the facilities have been in full commercial production for at least one full calendar quarter, applicants can submit a provisional pathway application).
- 26. In section 95488(e), clarified that existing physical pathway demonstrations that were approved under the previous regulation order will be "grandfathered" (accepted without any resubmittal requirements) during the pathway recertification process.
- 27. In section 95489, Table 8, the original proposal for Table 8 included all crudes supplied to California refineries from 2010 through the second quarter of 2014. The regulation now adds additional crudes that were supplied to California refineries during the third and fourth quarters of 2014 along with additional crude names that regulated parties have said they are considering for purchase in the future.
- 28. In section 95489, Table 8, in the original proposal, the CI value for Utah Sweet was estimated as 6.14 gCO₂e/MJ. An error in the crude production data table for this crude was noted and corrected. ARB updated the CI value for this crude.

- 29. In section 95489, Table 8, the original proposal for Table 8 did not include any crude names from Iran because of U.S. sanctions. It is possible that sanctions may be lifted in the near future resulting in potential import of Iranian crude to California. Therefore, these values were added.
- 30. In section 95489, Table 8 and Table 10 (formerly Table 11), one of the low-complexity/low-energy-use refineries has requested that we add CI values to Table 8 and Table 10 (formerly Table 11) for two sub-field crude names, Edison Light and South Belridge Light. At both of these fields, both heavy crude and light crude are produced from different oil pools. The heavy crude is produced with steam injection while the light crude does not use steam injection. The refinery is considering the option for refinery-specific incremental deficit accounting and would like the CI values to reflect the light crude that they purchase. ARB added these sub-field crude names and CI values to Table 8 and Table 10 (formerly Table 11).
- 31. In section 95489, carbon intensity values in Table 8 and Table 10 (formerly Table 11) of the original proposal were estimated with Oil Production Greenhouse gas Emissions Estimator (OPGEE) Version 1.1 Draft D. In response to stakeholder comments, staff is proposing that the Steam Injection sheet of OPGEE be revised to incorporate a higher default steam generator inlet temperature and to correct the default heat recovery steam generator exhaust temperature. The proposed revisions to OPGEE in version 1.1 Draft E require that CI values for all crudes produced using steam injection be re-estimated. CI values for these crudes were updated, as well as the 2010 Baseline Crude Average CI and the Default CI.
- 32. In section 95489(b), the original proposal provides three equations for calculating the 2010 Baseline Crude Average CI for years 2015, 2016, and 2017 and beyond. The proposed changes to OPGEE Version 1.1 Draft E affect the calculation of the 2010 Baseline Crude Average CI. The equations in section 95489(b) were updated to reflect the revisions to OPGEE and the 2010 Baseline Crude Average CI.
- 33. In sections 95489(b) and (e), the original proposal assesses an incremental deficit if the Three-year California Crude Average carbon intensity value exceeds the 2010 Baseline Crude Average carbon intensity. Stakeholders commented that in order to avoid increased regulatory and reporting burden for small changes in crude CI, the difference between the Three-year California Crude Average CI and the 2010 Baseline Crude Average CI should exceed a *de minimis* level (e.g., 0.1 gCO₂e/MJ) before an incremental deficit is incurred. Staff agrees and is proposing to include a 0.10 gCO₂e/MJ *de minimis* threshold for both the California Average incremental deficit, section 95489(b), and the refinery-specific incremental deficit, section 95489(e)(4). Under the revised language, an incremental deficit will only be triggered if the Three-year California Crude Average CI exceeds the 2010 Baseline Crude Average CI by more than 0.10 gCO₂e/MJ, but if an incremental deficit is triggered, the resulting incremental deficit will still be calculated relative to the 2010 Baseline Crude Average CI.
- 34. In section 95489, the original proposal does not clearly indicate that regulated parties for CARBOB and diesel are only assessed deficits on the finished fuels

- supplied to the California market. The revision to the definition for E^{XD} in sections 95489(b) and 95489(e)(4)(B) clarifies this intent.
- 35. In section 95489(d), the original proposal for the Innovative Crude Provision allows for the use of a simplified application process and default credit calculation for generation of solar steam with a quality of 65 percent or greater. Because generation of lower quality steam is sometimes necessary due to water quality issues, stakeholders have suggested a lower limit of 55 percent quality steam. Section 95489(d) was modified to allow for the use of the simplified application process and default credit calculation for generation of solar steam with a quality of 55 percent or greater.
- 36. In section 95489(d)(1)(F), the original proposal for the Innovative Crude Provision lists default credit calculations for solar steam generation. The proposed changes to the steam injection sheet for OPGEE Version 1.1 Draft E result in a revised emissions credit for displacing natural gas fueled steam generation with solar steam generation. Therefore, staff is proposing that the default credit values for solar steam generation in section 95489(d)(1)(F) be changed to reflect the changes to OPGEE.
- 37. In section 95489(e), staff inadvertently omitted from the original proposal language to prohibit selling or transferring of the credits generated from this section and some equations were overly complicated. Therefore, language was added to prohibit the selling and trading of credits generated in section 95489(e) and modifications were made to simplify the equations in this section.
- 38. In section 95489(e)(4)(C), under the original proposal for refinery-specific incremental deficit accounting, new crudes not listed in Table 8 would be assigned a default carbon intensity equal to the California 2010 Baseline Crude Average CI. Due to concerns that this California Average default may not represent the type of crude purchased by low-complexity/low-energy-use refineries, and therefore, is not the best default value to use for refinery-specific accounting, the final regulation instead uses the Refinery 2010 Baseline Crude Average CI as the default for those refineries that opt for refinery-specific incremental deficit accounting.
- 39. Sections 95489(f) and (g), contain the refinery investment provision and a renewable hydrogen refinery credit provision. In the original proposal, these two concepts were merged under the refinery investment provision. Staff suggested modifications to the original proposal at the Board Hearing, including clarifications to the refinery investment provision. As a result, staff split the refinery investment provision into two sections for clarity. Staff also added language to clarify the types of projects that would be ineligible for the investment credit and language to limit the number of credits that could be applied to the regulated party's deficits annually.
- 40. In section 95490, deleted the multimedia evaluation (MME) provisions from the LCFS as unnecessary and largely duplicative of existing law. This required deletion of the following provisions from the regulation that staff originally proposed: 1) deletion of section 95490 in its entirety, 2) deletion of the definition of MME from section 95481(a)(59), and 3) deletion of the application requirements related to MME at section 95488(c)(4)(G)6.d.

Health and Safety Code section 43830.8 requires a MME be conducted before ARB adopts a regulation that establishes a fuel specification. LCFS does not establish any fuel specifications, and while some new transportation fuels may need fuel specifications in the future, any that are adopted will be added to ARB's fuel regulations in Title 13, California Code of Regulations, rather than to the LCFS regulation. Title 13 already establishes fuel specifications for the following alternative fuels: M100 and M85 methanol, E100 and E85 ethanol, compressed natural gas, liquefied petroleum gas, and hydrogen. As noted above, if any new fuel that substitutes for gasoline establishes a fuel specification in the future, the MME will be conducted as required by the Health and Safety Code without parallel requirements in the LCFS regulation.

- 41. In section 95491, added a table of the Annual Compliance Calendar (Table 12) to further clarify submission dates of the quarterly and annual reports, while also showing the timeline of the Credit Clearance Market.
- 42. In section 95491(a)(1)(A), given the modifications to section 95491(a)(3)(D), an Electrical Distribution Utility that opts into the program would not be able to meet the quarterly reporting deadlines due to the fact that ARB will provide estimated electricity amounts and calculate the credits or deficits generated annually for them. Therefore, the provision mandating quarterly reports has been modified to recognize the exemptions added in separate provisions.
- 43. In section 95491(a)(7), limited report correction requests to the quarterly reports within the current compliance period.
- 44. The current LCFS Regulation, amended in 2011, allows the use of estimation methods to calculate credits for electricity dispensed to vehicles at residences prior to 2015. However, effective January 1, 2015, the current regulation requires direct metering be used. Presently, for most residential charging, direct metering has not been installed. The originally proposed text would continue the practice of using an estimation method to calculate these credits under the new regulation. However, the original proposal did not clearly address the year 2015 which will precede any likely effective date for the proposed regulation. Therefore, section 95491(a)(3)(D) was modified:
 - a. Allow 2015 estimation, thus ensuring continuity in how residential charging is reported.
 - Establish an annual schedule for reporting and calculating residential EV charging that allows time for reporting and calculating the pertinent information for the previous year.
 - c. Have ARB perform this calculation rather than the reporting party.
- 45. In section 95491(c)(1)(A)7., made this provision more consistent with the reporting requirements by clarifying that the Product Transfer Document (PTD) requirements for the Fuel Production Company ID and Facility ID are not intended for CARBOB, diesel fuel, and Fossil NG fuel.
- 46. In section 95494, language was modified to clarify that penalties may be assessed for each day of violation of any part of the subarticle (and not subsection). Eliminated one of two alternative penalty approaches.
- 47. In section 95495, defined "material information" to capture a wide variety of

information and data submitted in connection with obtaining a pathway and CI score as well as the information reported in LRT-CBTS. "Material information" is information that affects the CI score. All CIs are calculated to two decimal places. They constitute maxima: actual fuel production CIs shall not be above the certified CIs, as calculated on a 12-month average basis. Similarly, transaction volumes reported in LRT-CBTS might be inaccurate by a few gallons, without changing the number of credits or deficits generated by more than a fraction of one credit or deficit, and would be immaterial. Larger reporting errors could result in generation of one or more additional credits or deficits, and would be considered material.

48. In section 95496, added a "progress report" that will be presented to the board by July 30, 2017 focused on progress against the LCFS targets, the volumes of low carbon fuels used in California, and the performance of additional crediting provisions added through this rulemaking. Staff made this change to address Board direction and in response to stakeholder comment.

Two statutes listed as authority are proposed to be stricken. Staff has determined that those two provisions do not provide independent authority for the overall proposal.

Summary of Proposed Second 15-Day Modifications:

- 1. In section 95481, the definition of "Aggregation Indicator" has been modified to "Aggregated Transaction Indicator" for clarity and consistency throughout the regulation.
- 2. In sections 95483(e)(7) and 94591(a)(3)(D)7. now allows electric forklift fleet operators to opt-in to the LCFS and generate credits. Under the current regulation, the Electrical Distribution Utility is the only party that is allowed to generate LCFS credits for electrical forklifts. The change is meant to encourage technology innovations and foster capital investments in electric forklifts.
- 3. In section 95488, a change streamlined the recertification process by which "legacy pathways" certified under prior versions of the LCFS regulation could be recertified, pursuant to the proposed regulation, by ARB staff using the CA-GREET 2.0 model. The goal of these changes is to minimize disruption of credit generation in the program due to the move from CA-GREET 1.8b to CA-GREET 2.0.
 - The program currently has over 270 Method 2 legacy pathways, including pathways posted as recently as May of 2015. During the first 15-day comment period stakeholders requested additional clarity on the fate of these existing pathways.
 - For many of these pathways ARB staff already has all of the information needed to conduct recertification without any submission of additional data by the applicant, and an abbreviated pathway re-certification process is appropriate. Under the proposed changes, ARB staff could request additional information if required.
- 4. In section 95488(c)(3)(A)3. and 95488(c)(4)(I)3., added receipts or invoices for

- "energy consumption" to the list of materials that may be checked by third-party auditors. This category was inadvertently omitted in prior text.
- 5. In section 95486(a)(2), section 95488(d)(1) and section 95488(d)(2), removed limitations on the sale or transfer of credits generated under temporary pathway codes and provisional pathways. Stakeholders commented that these limitations created a barrier to project financing for low carbon fuel production.
- 6. In section 95488(d)(2) and section 95495, modifications were made to clarify the Executive Officer's authority to revoke or adjust the number of credits issued under a provisional CI at any time and without undertaking the process described in section 95495.
- 7. In addition to the modifications described above, additional modifications correcting grammar, punctuation and spelling have been made throughout the proposed changes. These changes are non-substantial.

Summary of Proposed Third 15-Day Modifications:

To make the proposed regulation more clear, the following changes were made, none of which substantively changed the proposal.

- 1. In section 95486(a)(2), staff is proposing to remove the sentence stating that provisional credits may not be used until they are fully recognized. That sentence is not needed given the sentence that follows, and could create confusion.
- 2. In section 95488(a)(1), staff is proposing to strike subsection (C) because it duplicates subsection (B).
- 3. In section 95489(a), staff is proposing to add a brief description of added subsection 95489(g) to be consistent with the rest of the section 95489(a) which briefly describes subsections (b) through (f).

The modifications reflected in the three sets of 15-day rule changes summarized above consist primarily of clarifications and limited substantive changes that are not expected to substantially alter the compliance response to the regulation.

In the interest of completeness, staff added to the rulemaking record and invited comments on additional documents. The documents, described in more detail in the first and third 15-day notices, included (1) updated models that are incorporated into the regulation by reference, (2) additional references that came to ARB's attention after the initial notice of proposed rulemaking, (3) two references in the ISOR and its appendices that had been inadvertently omitted from the public rulemaking file available at ARB's offices, (4) nine emails that one stakeholder requested access to were placed in the record where all stakeholders could review them, and (5) a CD and a spreadsheet, also requested by one stakeholder, was placed in the record to provide all interested parties access.