

State of California  
Air Resources Board

**UPDATED INFORMATIVE DIGEST**

**REGULATION TO IMPLEMENT THE CALIFORNIA LOW CARBON FUEL  
STANDARD**

**Sections Affected**

Amendments to sections 95480.1, 95481, and 95486, of title 17, California Code of Regulations.

**Background:**

In 2006, the Legislature passed and Governor Schwarzenegger signed the California Global Warming Solutions Act of 2006 (Assembly Bill 32; Stats. 2006, chapter 488). In Assembly Bill (AB) 32, the Legislature declared that global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The Legislature further declared that global warming will have detrimental effects on some of California's largest industries, including agriculture and tourism, and will increase the strain on electricity supplies. While national and international actions are necessary to fully address the issue of global warming, the Legislature recognized that action taken by California to reduce emissions of greenhouse gases (GHG) will have far-reaching effects by encouraging other states, the federal government, and other countries to act.

AB 32 creates a comprehensive, multi-year program to reduce GHG emissions in California, with the overall goal of restoring emissions to 1990 levels by the year 2020. AB 32 requires the Air Resources Board (ARB or Board) to take actions that include: establishing a statewide GHG emissions cap for 2020, based on 1990 emissions; adopting a scoping plan by January 1, 2009, indicating how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms, and other actions; adopting a list of discrete, early action GHG emission reduction measures by June 30, 2007, which can be implemented and enforced no later than January 1, 2010; and adopting regulations by January 1, 2010, to implement the measures identified on the list of discrete early action measures.

In 2007, Governor Schwarzenegger signed Executive Order S-01-07. This executive order directed the ARB to determine if an LCFS for transportation fuels used in California can be adopted as a discrete early action measure pursuant to AB 32.<sup>1</sup> If

---

<sup>1</sup> In addition to substantially reducing GHG emissions from transportation fuels, the LCFS is expected to help diversify the transportation fuels market in California, thereby cutting petroleum dependency and creating a sustainable and growing market for cleaner fuels. Governor's White Paper, *The Role of a Low Carbon Fuel Standard in Reducing Greenhouse Gas Emissions and Protecting Our Economy*, <<http://gov.ca.gov/index.php?/fact-sheet/5155/>>.

ARB so determines, Executive Order S-01-07 directs ARB to consider adoption of the LCFS on the list of early action measures required to be identified by June 30, 2007, pursuant to Health and Safety Code section 38560.5. Executive Order S-01-07 further directs the ARB to draft the LCFS so that it reduces the carbon intensity of transportation fuels used in California by at least 10 percent by the year 2020.

In 2007, the Board approved a list of nine discrete early action measures. The list includes a measure entitled “Low Carbon Fuel Standard” (LCFS). On April 23, 2009, the Board conducted a public hearing to consider adoption of a regulation to implement the LCFS. Following the public hearing, the Board adopted Resolution 09-31, approving the adoption of title 17, California Code of Regulations, sections 95480, 95480.1, 95481, 95482, 95483, 95484, 95485, 95486, 95487, 95488, 95489 and 95490.

Resolution 09-31 directed the Executive Officer: (1) to incorporate into the approved regulations and incorporated document(s) the modifications described in Attachment B thereto and such other conforming modifications as may be appropriate; (2) to make the modified regulations (with the modifications clearly identified) and any additional documents or information available for public comment for a period of at least 30 days; (3) to consider any comments submitted during the supplemental comment period, and then: (4) either to adopt the regulations as made available with any appropriate additional nonsubstantial modifications, to make additional modifications available for public comment for an additional period of at least 15 days, or to present the regulations to the Board for further consideration if he determines that this is warranted.

The Executive Officer conducted the first two supplemental comment periods and determined that the regulation was complete and ready for adoption with two limited exceptions. First, it was and is ARB’s intent that the regulation identify carbon intensity values for two additional fuel pathways – biodiesel (fatty acid methyl esters – FAME) converted from Midwest soybeans, and renewable diesel converted from Midwest soybeans. However, by early November 2009 the development of the carbon intensity values had not yet been completed. Second, a severability clause had been inadvertently omitted from the versions of the regulation made available for public comment. The Executive Officer determined it was appropriate to bifurcate adoption of the regulation so that the LCFS regulation, except for these two limited incomplete elements, will enter into force as expeditiously as possible.

Accordingly, on November 25, 2009, the Executive Officer issued Executive Order R-09-014, adopting the California LCFS regulation – new sections 95480, 95480.1, 95481, 95482, 95483, 95484, 95485, 95486, 95487, 95488, 95489, and 95490 of title 17, California Code of Regulations – reflecting the final modifications that had been made available for the first two supplemental comment periods. The Executive Order expresses ARB’s intent that by the end of the LCFS rulemaking process, the adopted regulatory language will be augmented by the addition of the two remaining elements described above. However, the Executive Officer has determined that the adopted regulation meets all applicable statutory requirements in the absence of those elements.

On January 12, 2010, OAL approved the first part of the bifurcated LCFS regulation, and it became effective the same day.

The current rulemaking action adopts the remaining elements and thus completes the adoption of the LCFS regulation, as described in more detail below.

### **Description of the Regulatory Action:**

The following are substantive modifications made to the regulatory text of the LCFS approved by OAL on January 12, 2010.

#### *A. Applicability (Section 95480.1)*

A new subsection (f) has been added to incorporate a severability clause. From the beginning of the LCFS development, it was the ARB's intent to make each section and provision of the LCFS regulation severable to the extent allowed by law. However, the severability clause was inadvertently omitted from earlier versions of the regulation. The addition of this clause effectuates this intent, and is necessary to help assure that invalidation of one provision of the LCFS regulation does not have the unintended effect of invalidating the entire regulation.

#### *B. Definitions (Section 95481)*

Section 95481(a)(20.5) of the adopted regulation contains the definition for "GTAP" or "GTAP Model." The definition includes the computer files for the GTAP model customized for corn ethanol (GTAP-BIO (February 2009)) and for sugarcane ethanol (GTP-SGR (February 2009)), which are incorporated by reference in the regulation. In the Third 15-Day Change Notice, this definition was modified to incorporate by reference GTAP-SOY (December 2009). This was modified in the Fourth 15-Day Change Notice by revising the incorporation by reference of GTAP-SOY to reflect the updated version date (January 2010). The revised GTAP-SOY package was posted at <http://www.arb.ca.gov/fuels/lcfs/lcfs.htm> on January 29, 2010 and available with its components as a .zip file for download at <http://www.arb.ca.gov/fuels/lcfs/gtap-soy.zip>.

#### *C. Determination of Carbon Intensity Values (Section 95486)*

In section 95486(b)(1), the reference to the California-modified GREET (CA-GREET) model was updated to reflect the most recent version (version 1.8b, February 2009, updated December 2009).

In Table 7, carbon intensity values for two additional fuel pathways were added: biodiesel (fatty acid methyl esters – FAME) converted from Midwest soybeans, and renewable diesel converted from Midwest soybeans. The corresponding supporting pathway documents were also incorporated by reference.